

1/45

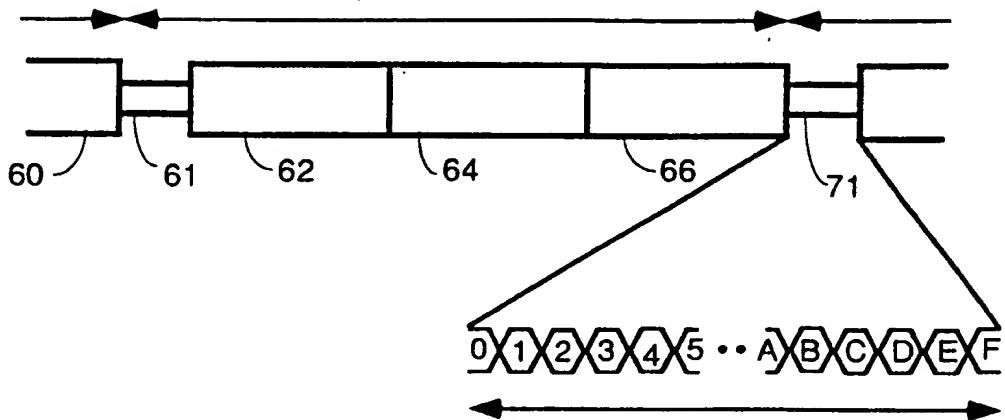


FIG. 1A

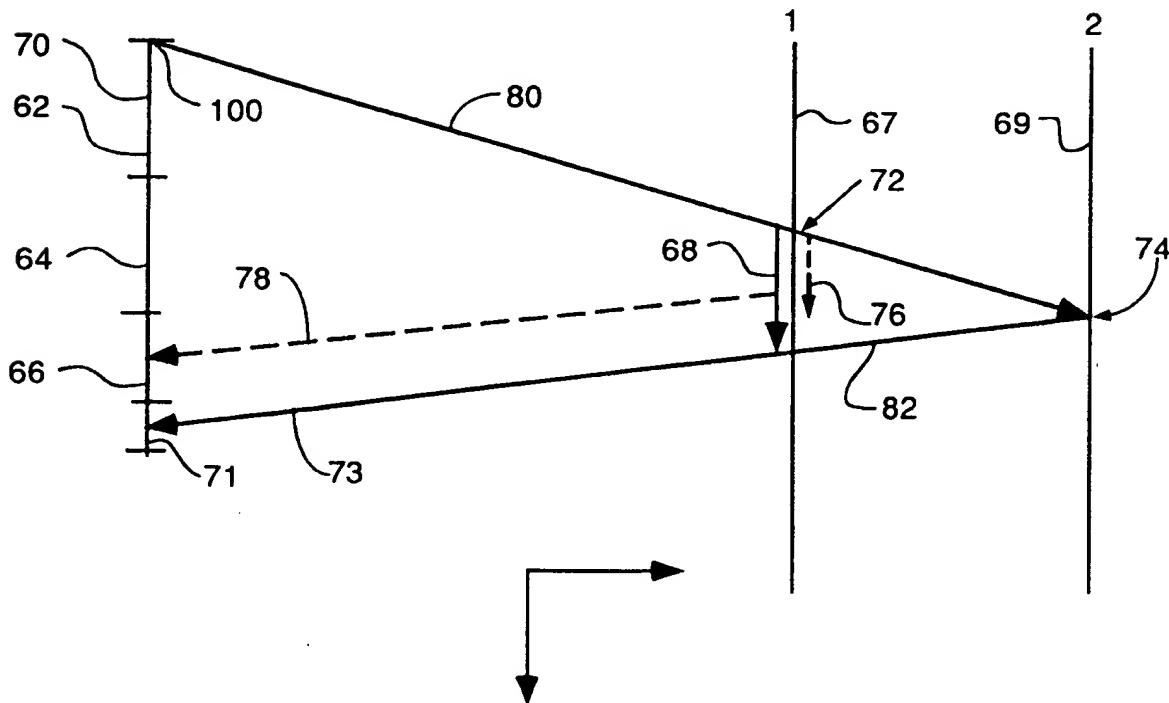
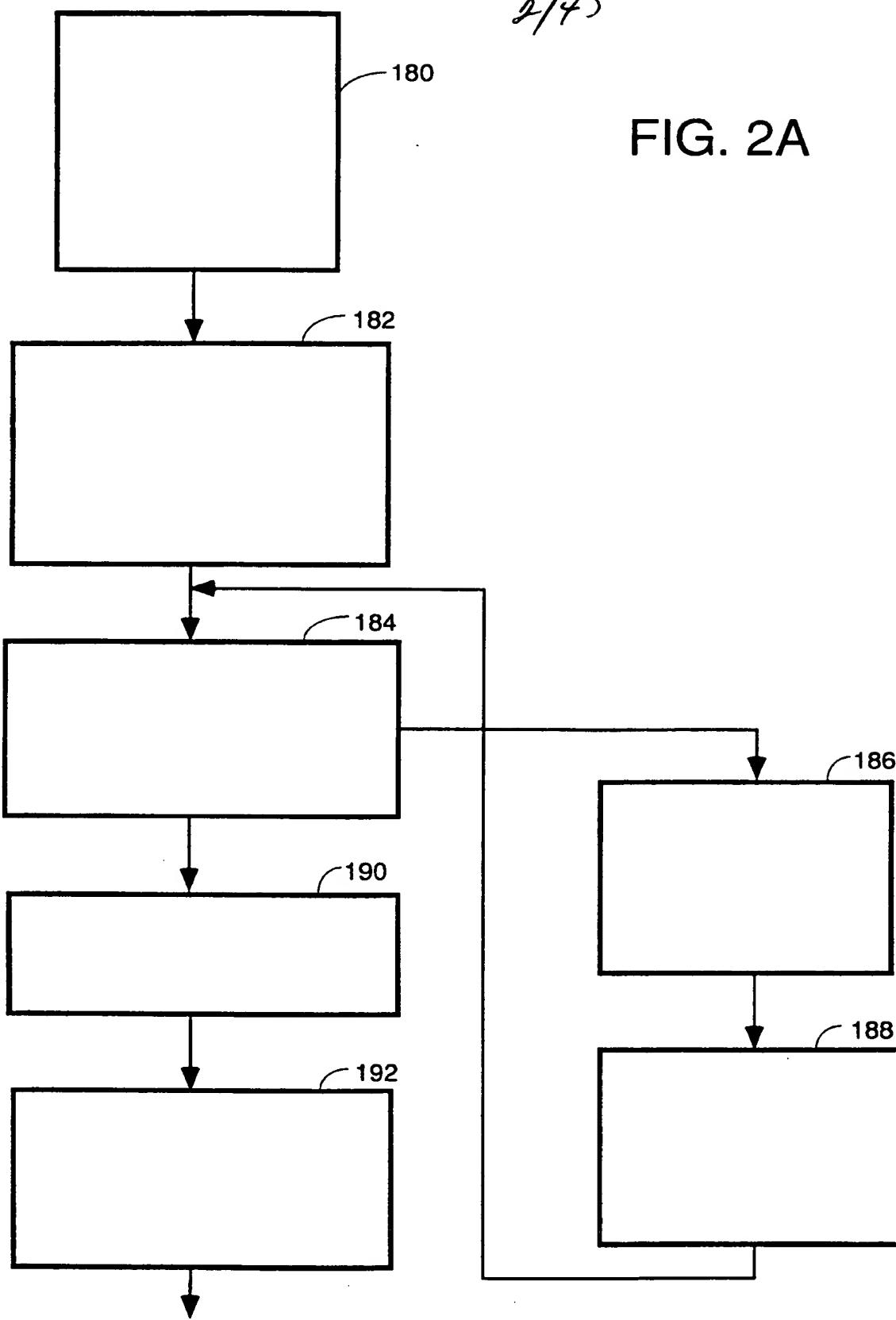


FIG. 1B

2/45

FIG. 2A



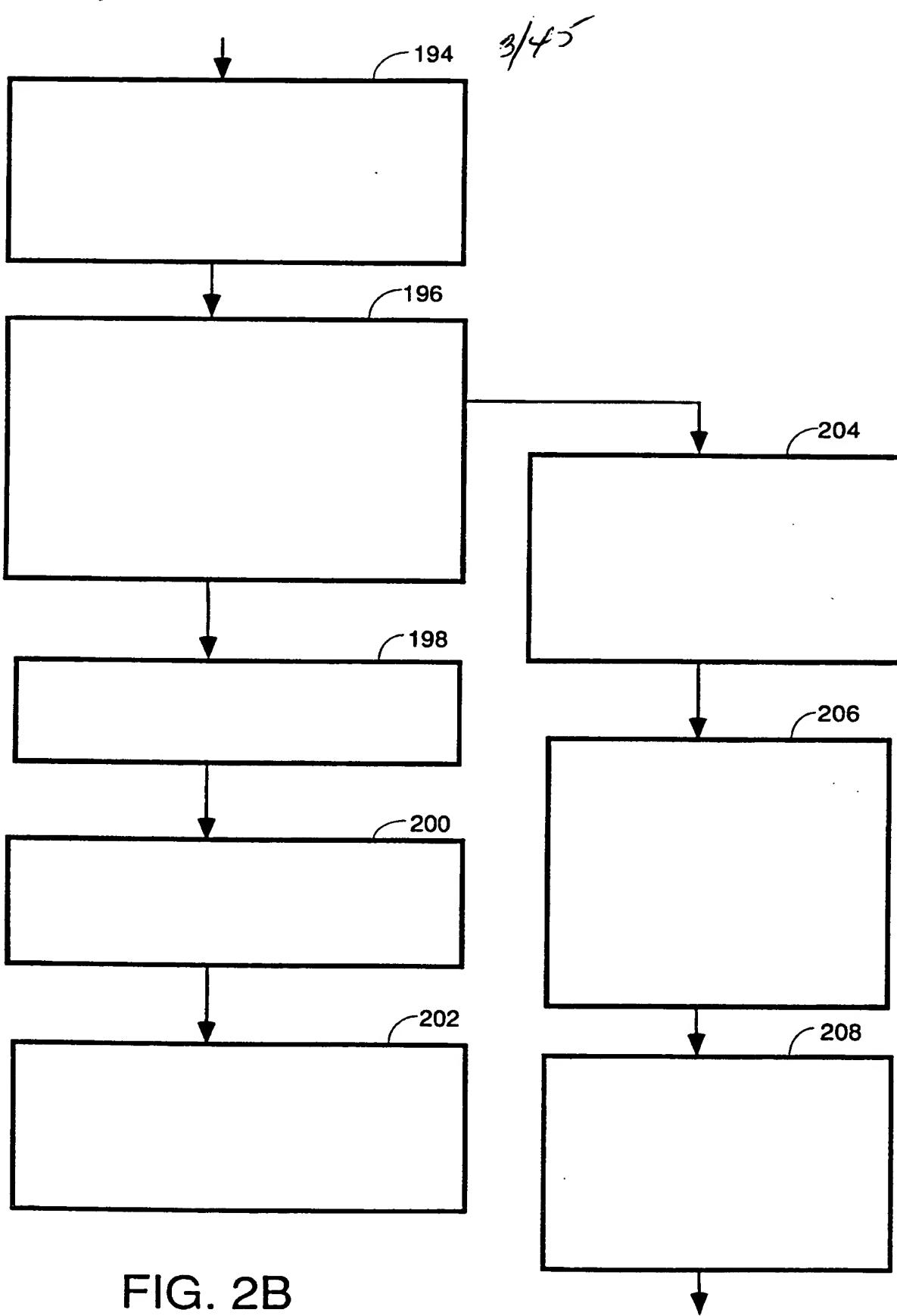


FIG. 2B

4/45

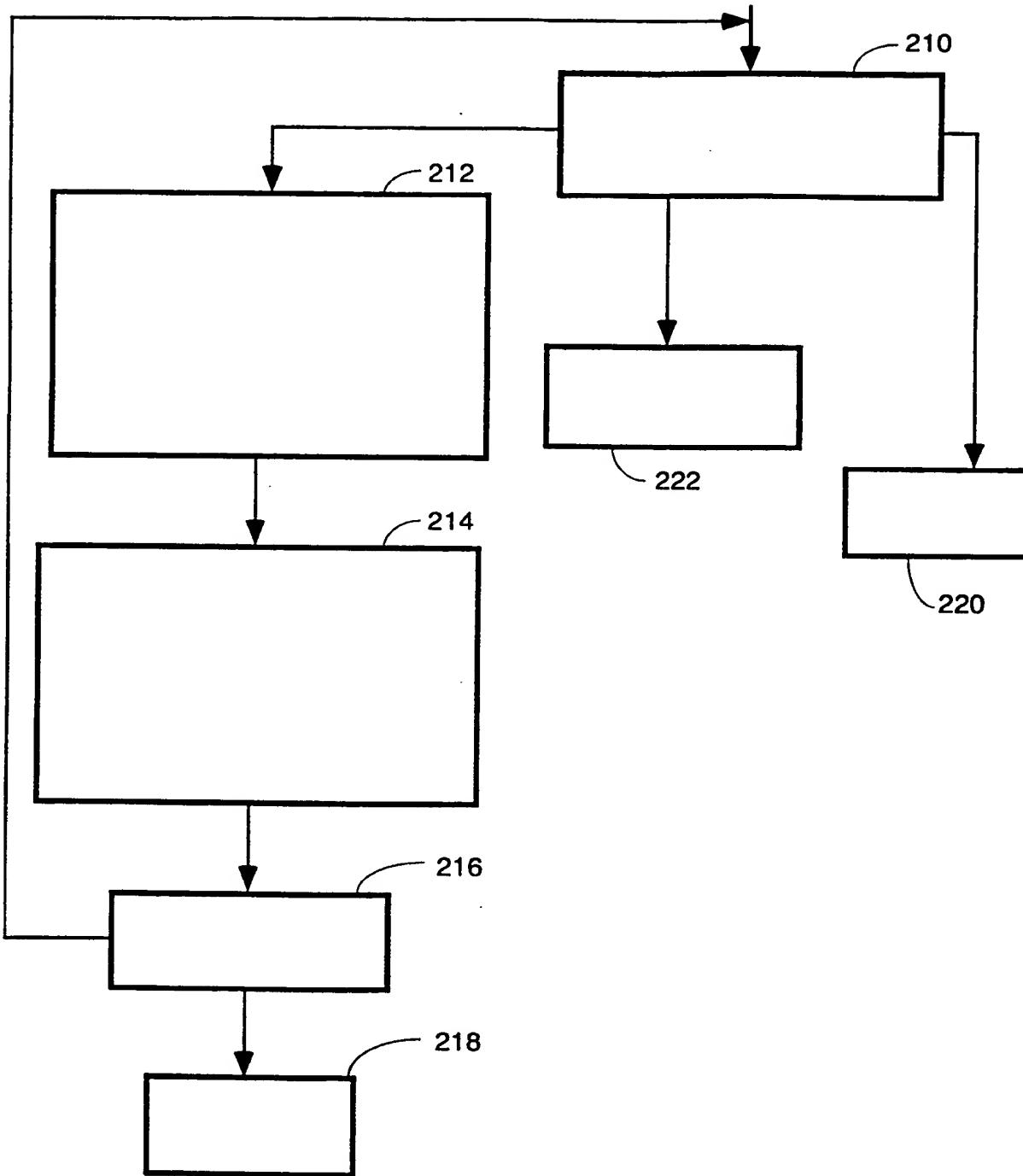
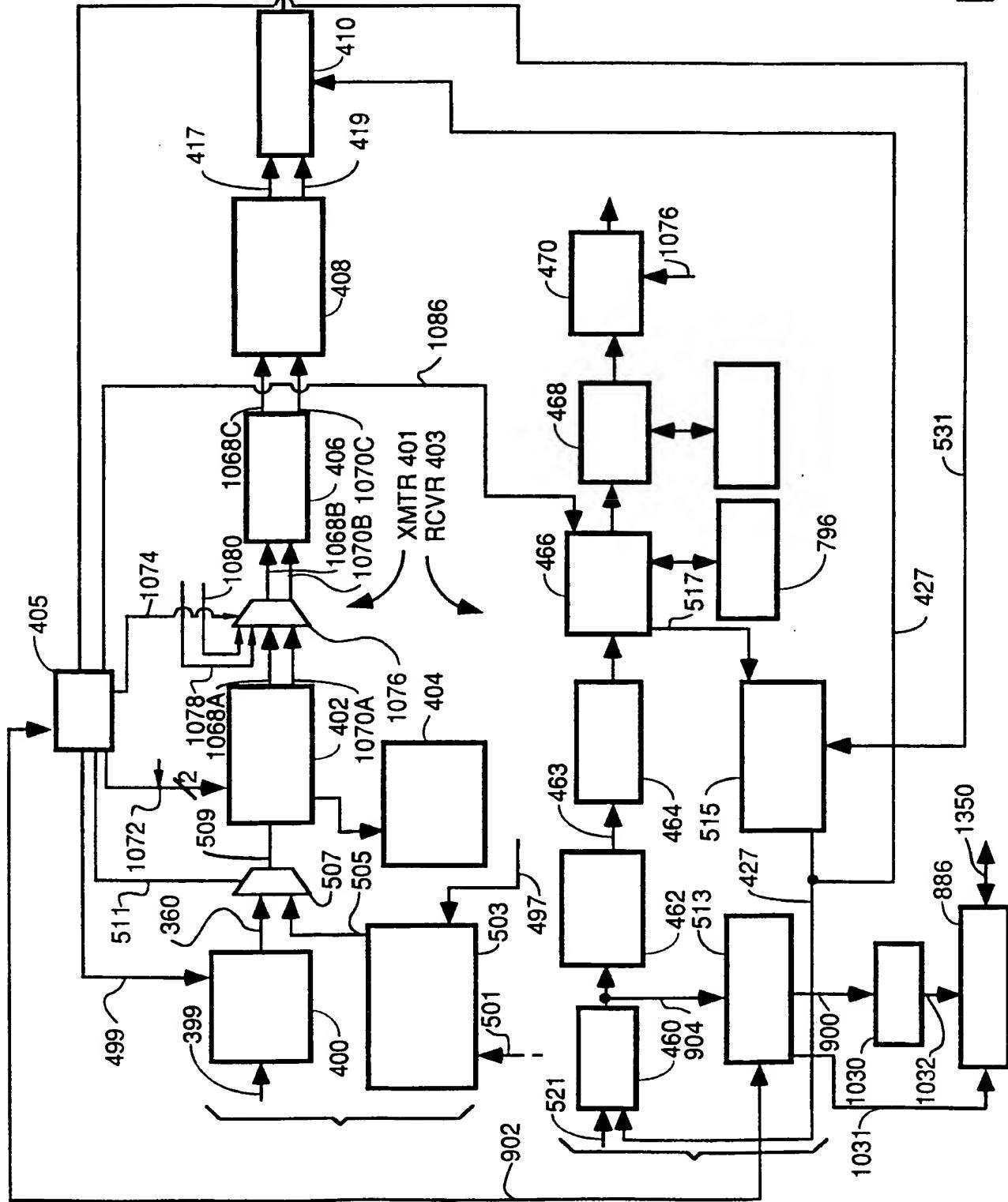


FIG. 2C

5/45

3
FIG.



09/214158

PCT/US97/03984

WO 97/34421

6/45

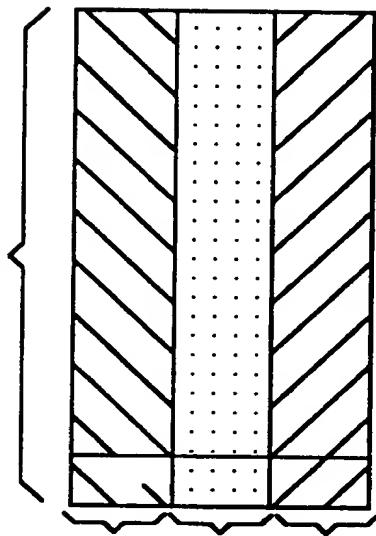


FIG. 4

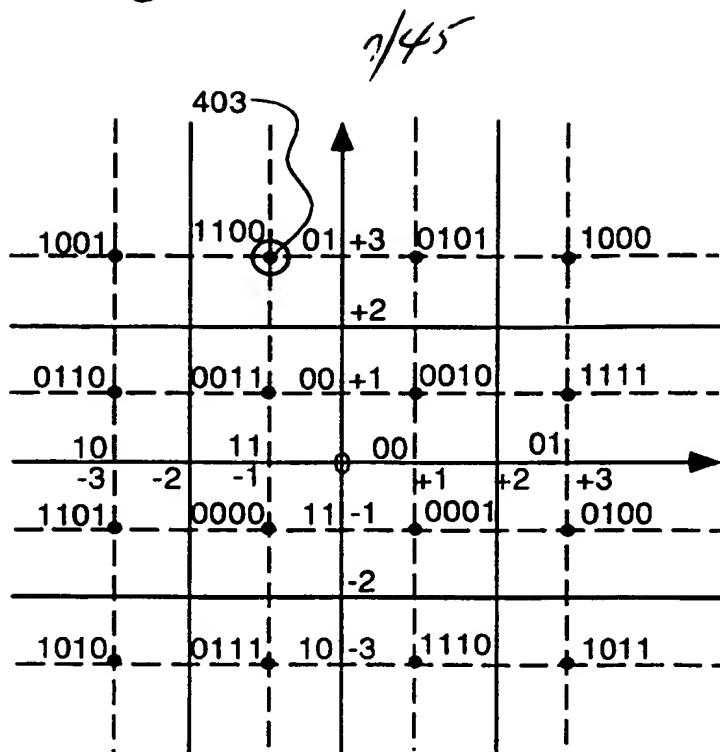


FIG. 5

0000	111	111	$= -1 -$
0001	001	111	$= 1 - j$
0010	001	001	$= 1 + j$
0011	111	001	$= -1 + j$
0100	011	111	$= 3 - j$
0101	001	011	$= 1 + 3 * j$
0110	101	001	$= -3 + j$
0111	111	101	$= -1 - 3 * j$
1000	011	011	$= +3 + 3 * j$
1001	101	011	$= -3 + 3 * j$
1010	101	101	$= -3 - 3 * j$
1011	011	101	$= 3 - 3 * j$
1100	111	011	$= -1 + 3 * j$
1101	101	111	$= -3 - j$
1110	001	101	$= 1 - 3 * j$
1111	011	001	$= 3 + j$

403

FIG. 6

8/45

$$\begin{bmatrix} 483 & 0110 \\ 481 & 1111 \\ & 1101 \\ & 0100 \\ & \vdots \end{bmatrix} \times \begin{bmatrix} c_{1,1} & c_{1,2} & \cdots & c_{1,144} \\ c_{2,1} & c_{2,2} & \cdots & c_{2,144} \\ \vdots & \vdots & & \vdots \end{bmatrix}$$

FIG. 7A

$$405 \cdot \begin{bmatrix} +3 \\ -1 \\ -1 \\ +3 \end{bmatrix} \cdot \begin{bmatrix} 1 & 1 & 1 & 1 \\ -1 & -1 & 1 & 1 \\ -1 & 1 & -1 & 1 \\ -1 & 1 & 1 & -1 \end{bmatrix} = \begin{bmatrix} 4 \\ 0 \\ 0 \\ -8 \end{bmatrix} \sim 409$$

$$\boxed{ } \times \boxed{ } = \boxed{ } =$$

FIG. 7B

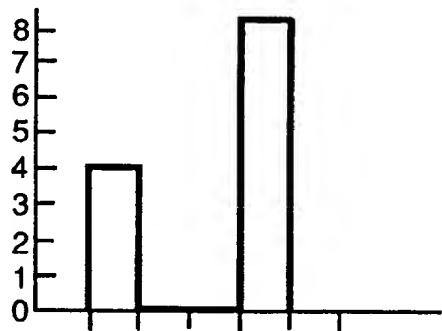
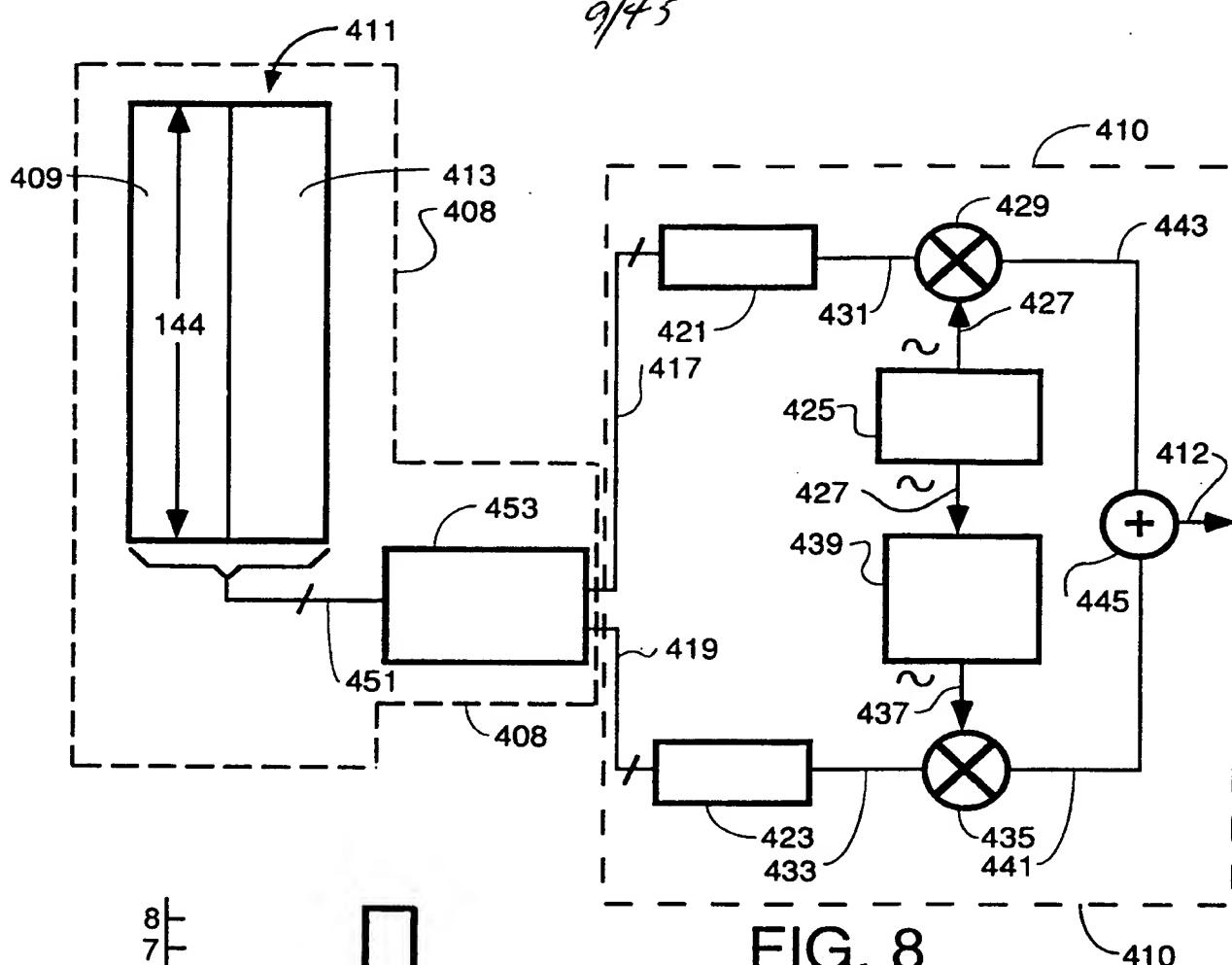


FIG. 9

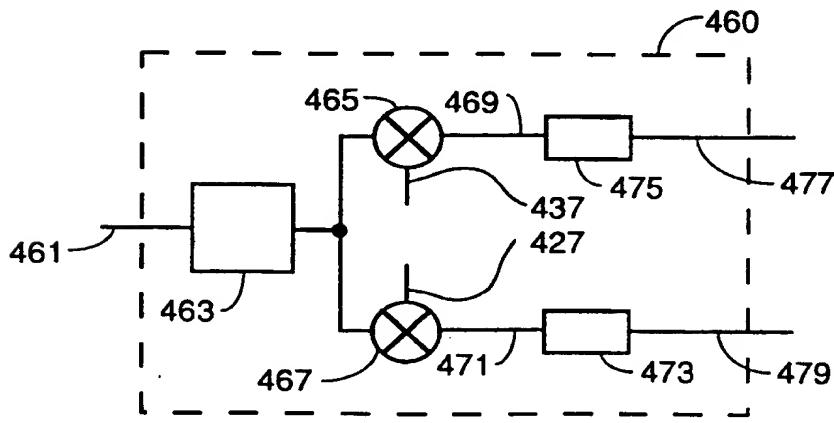


FIG. 10

10/45

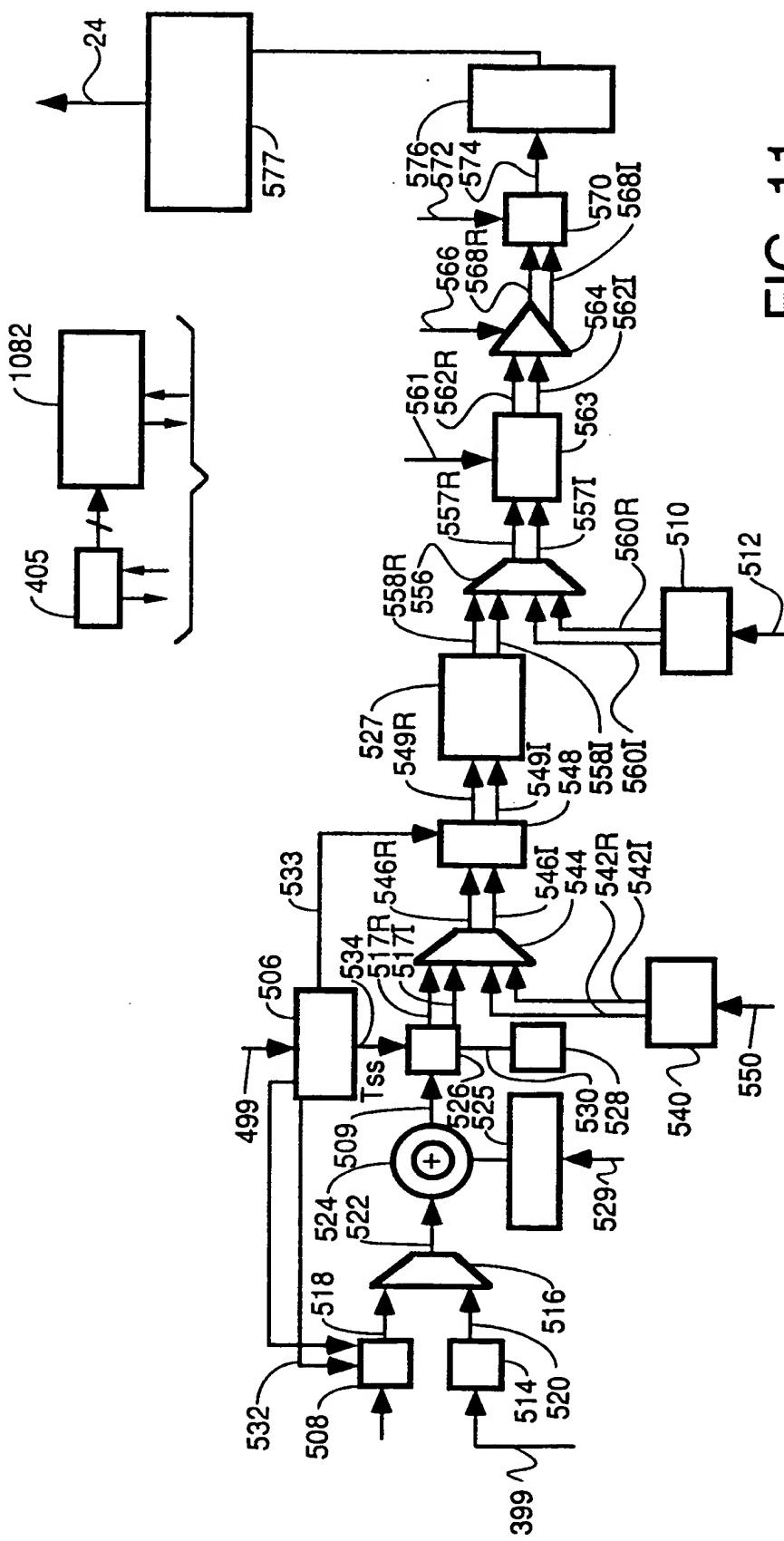
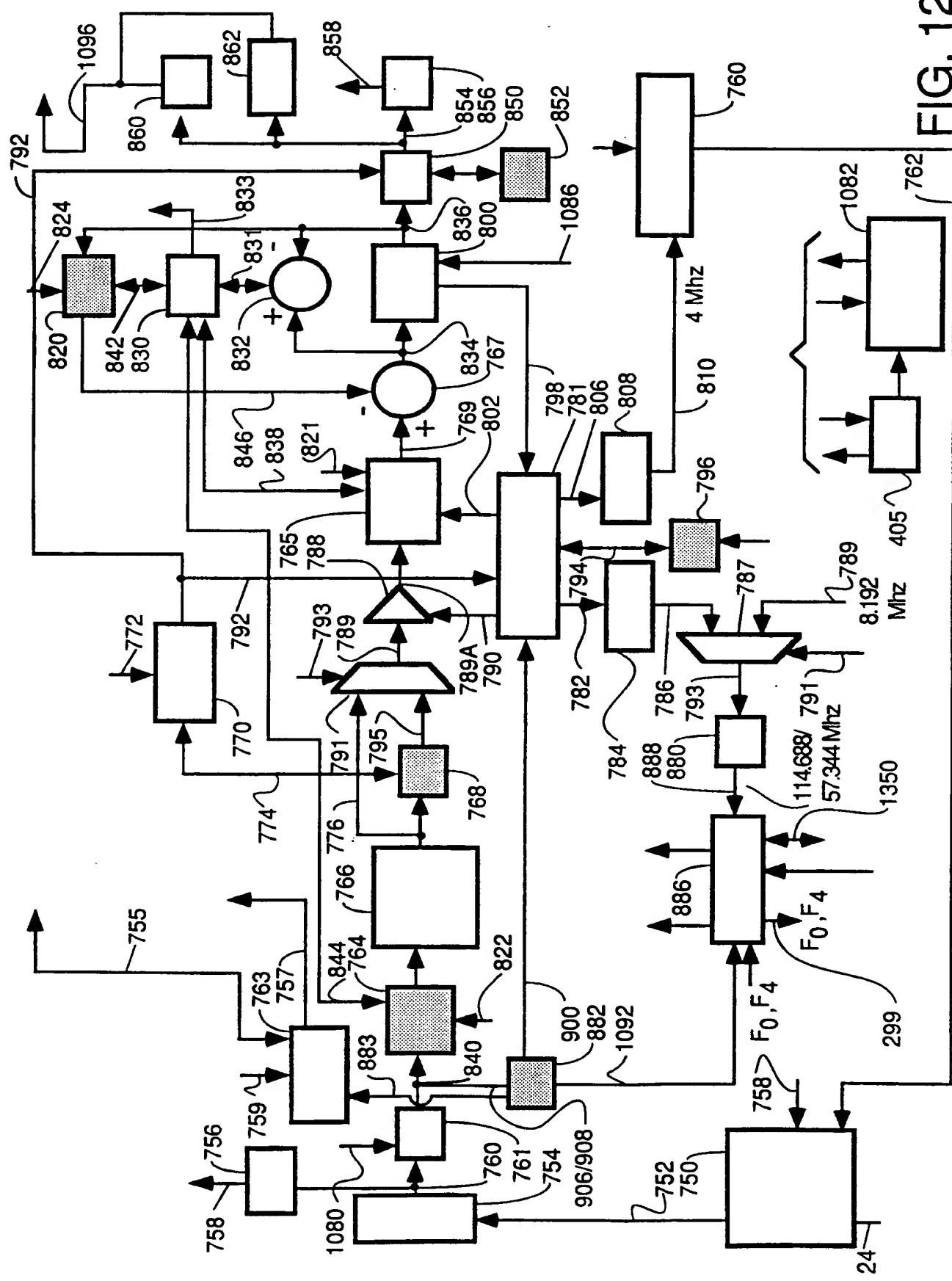


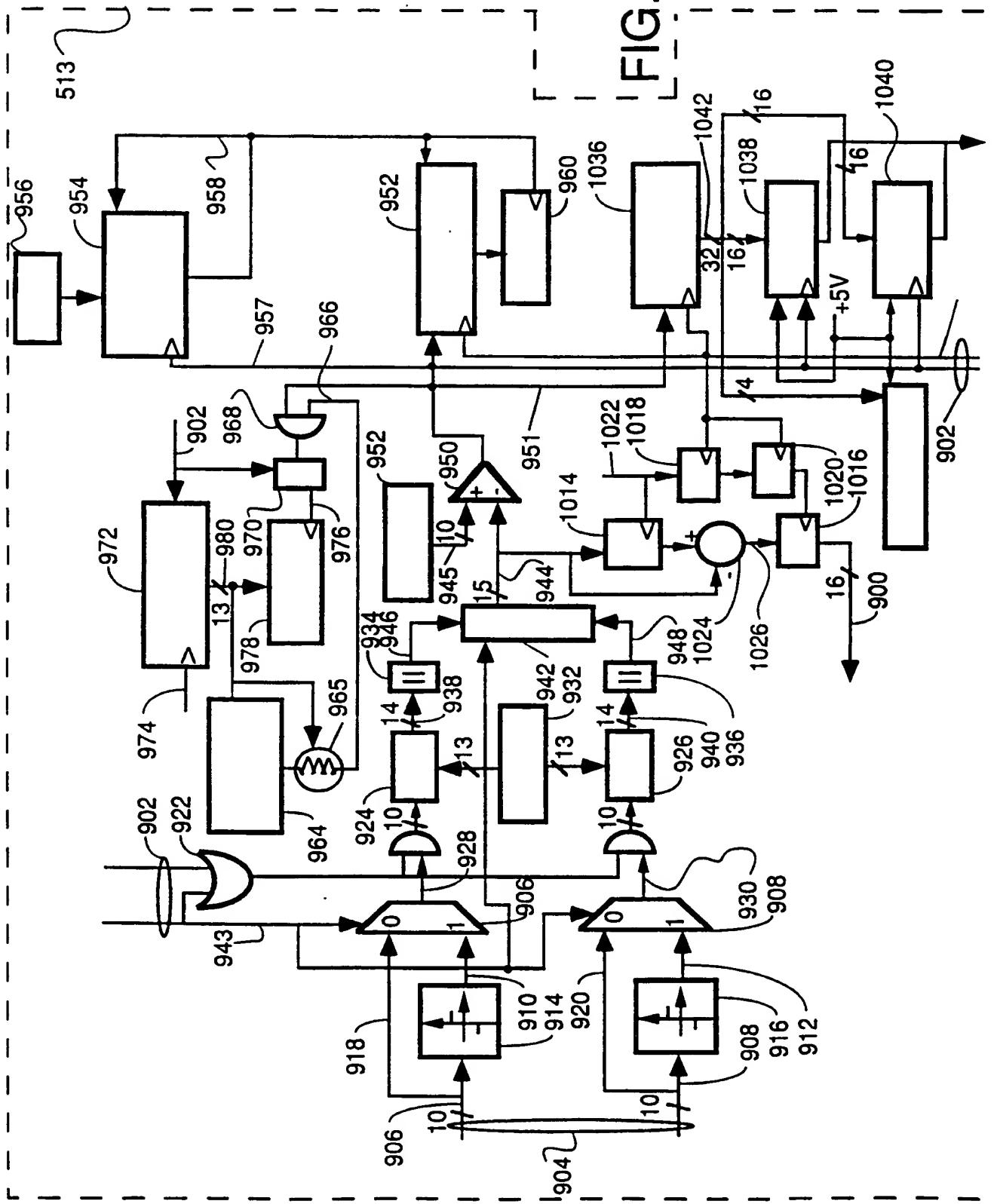
FIG. 1

11/45



12/45

FIG. 13



13/45

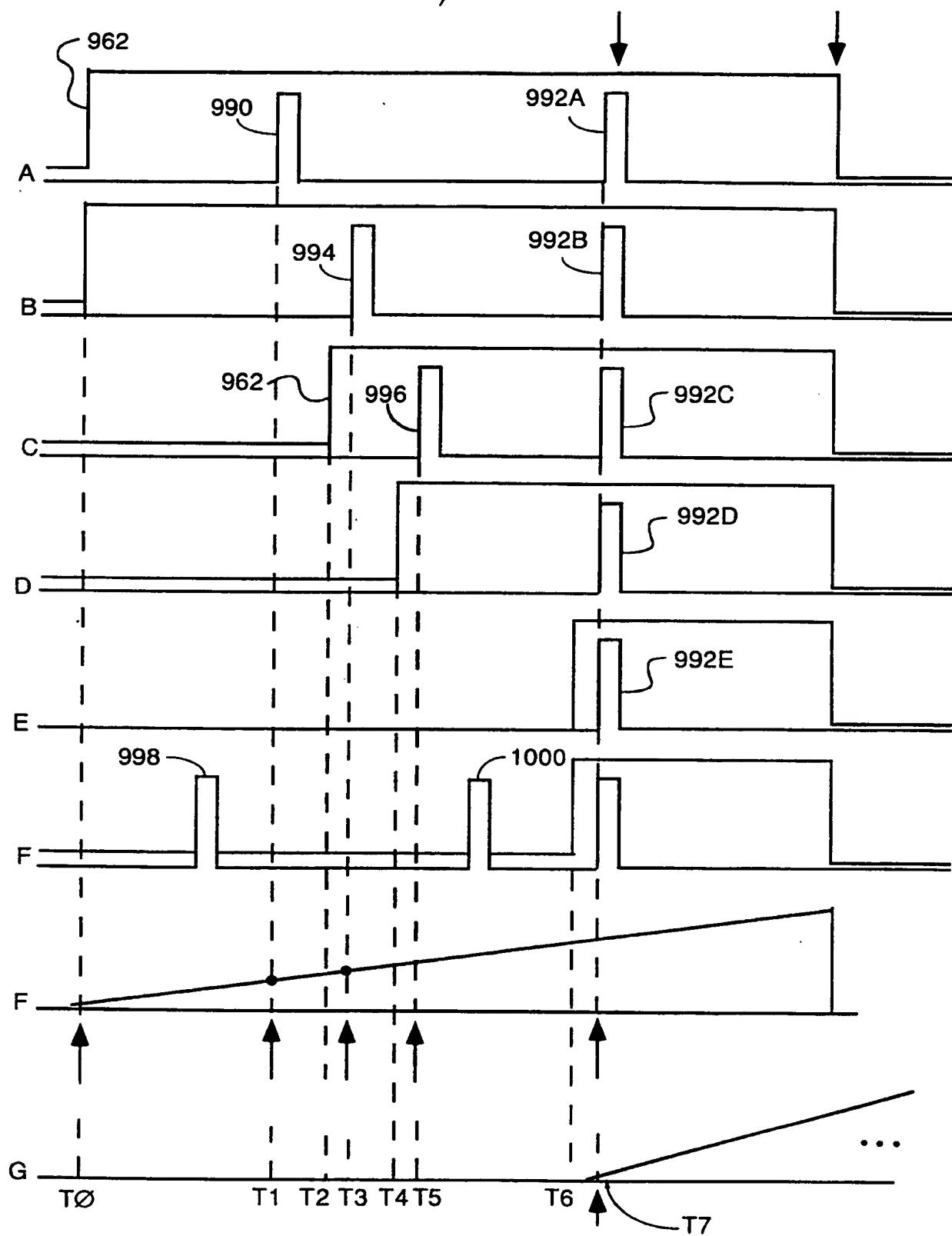


FIG. 14

14/45

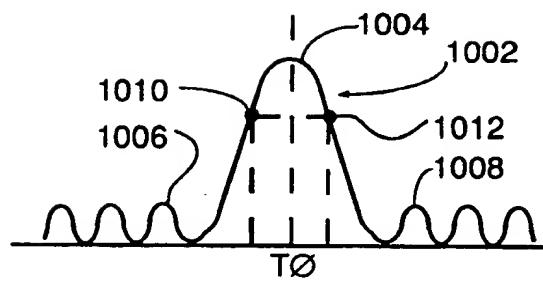


FIG. 15

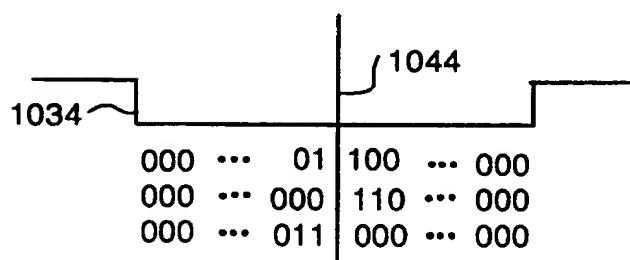


FIG. 16

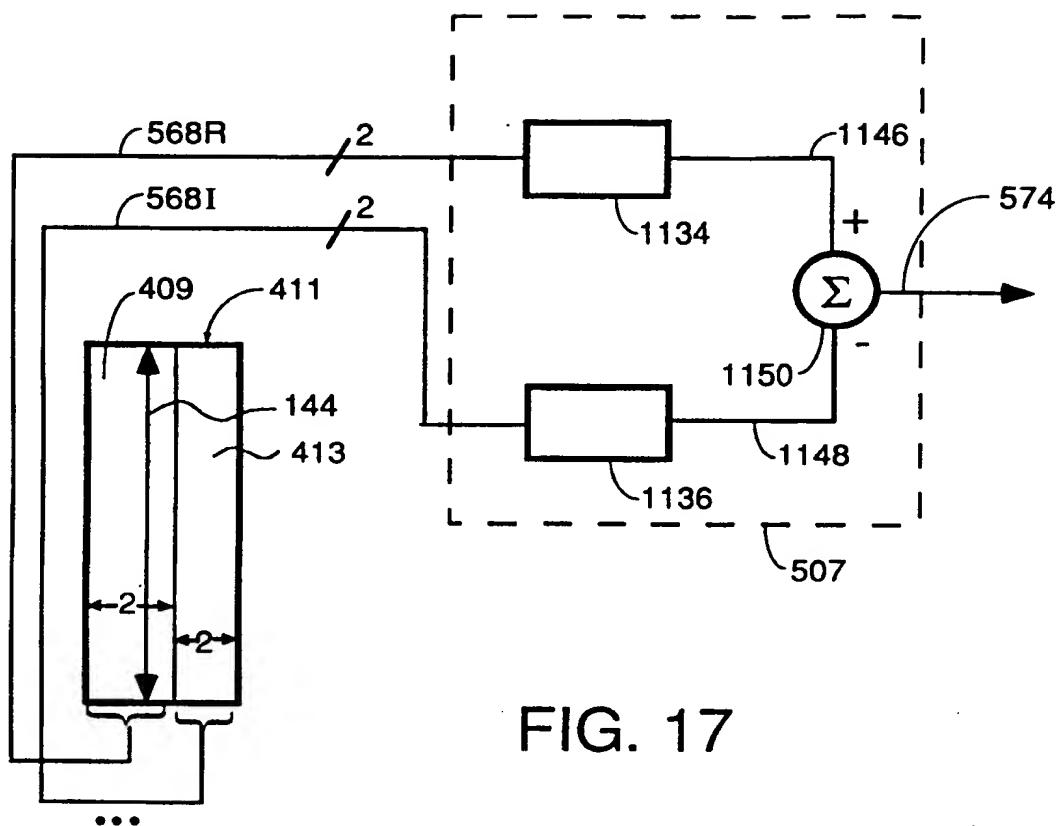


FIG. 17

16/45

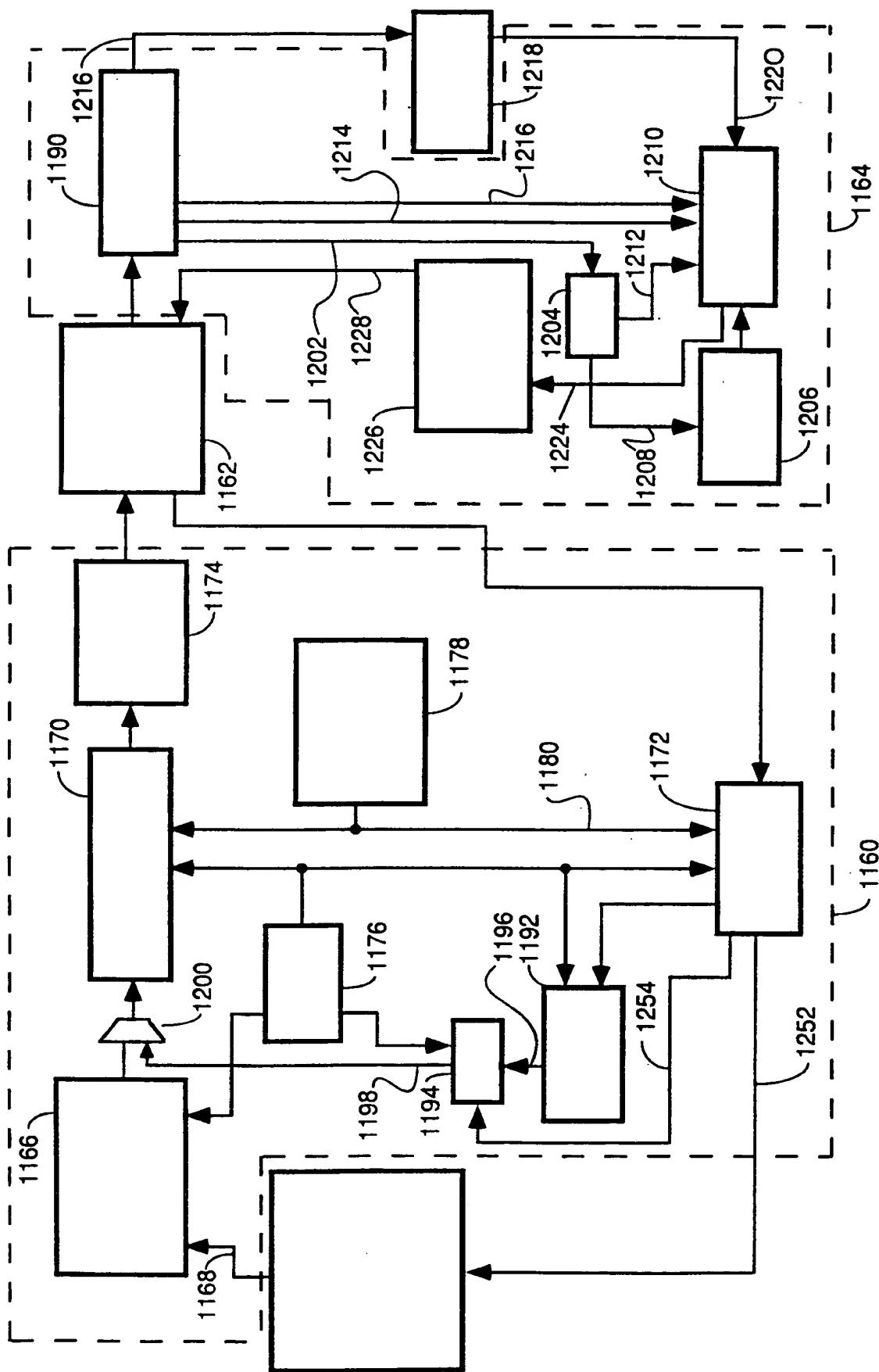


FIG. 18

17/45

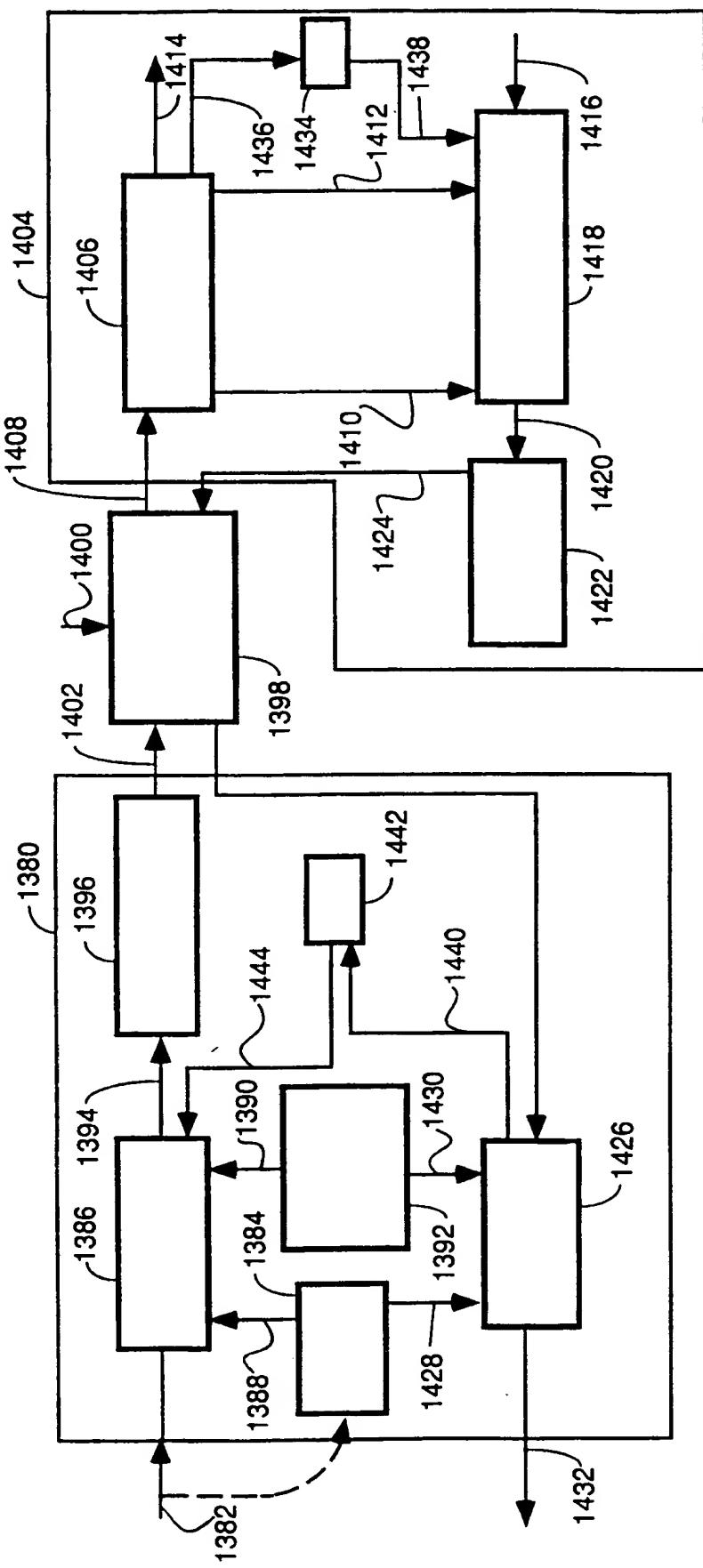


FIG. 19

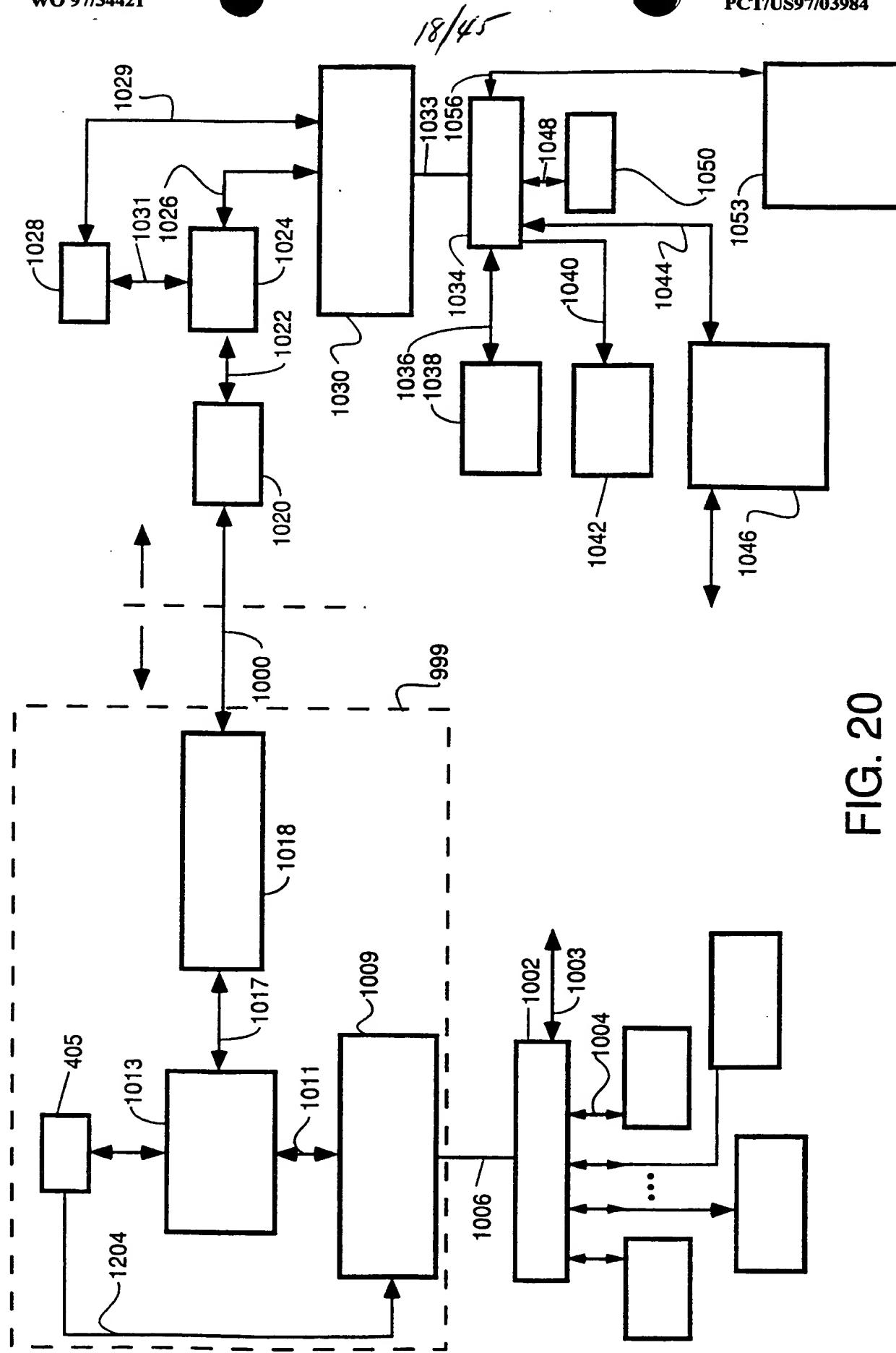


FIG. 20

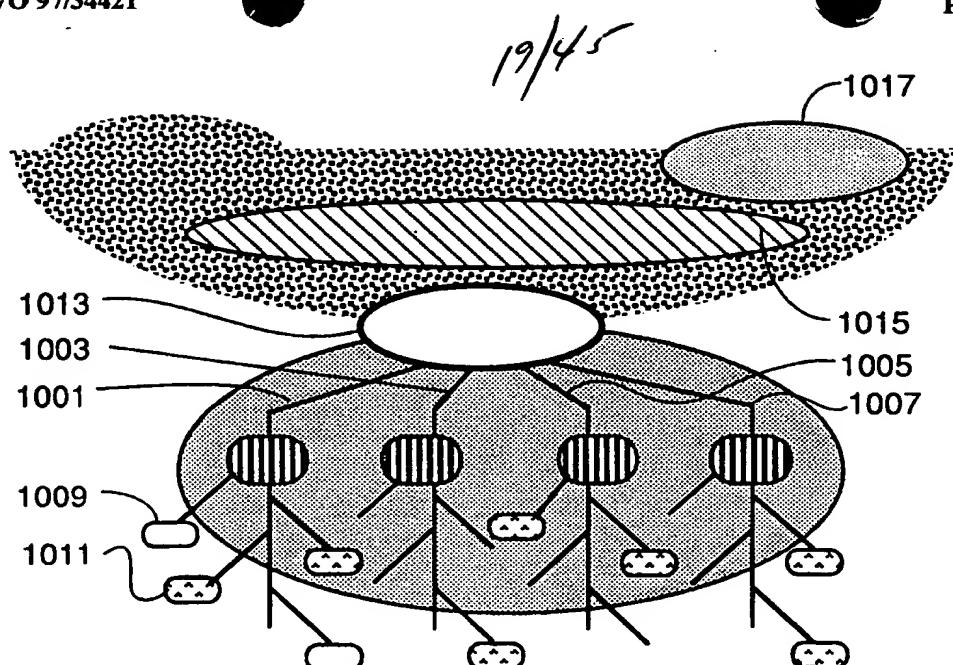


FIG. 21

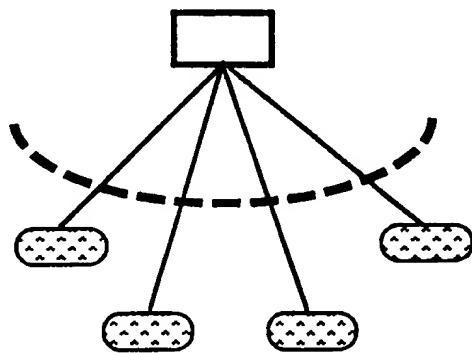


FIG. 22

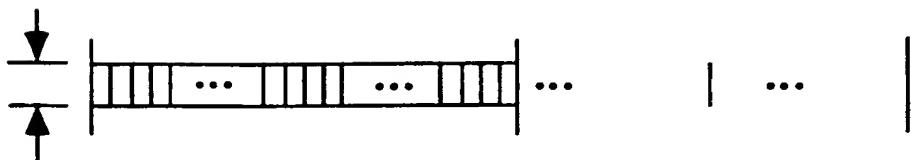


FIG. 23

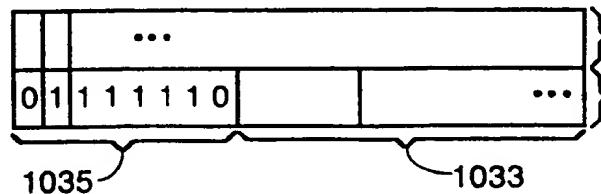


FIG. 24

20/45

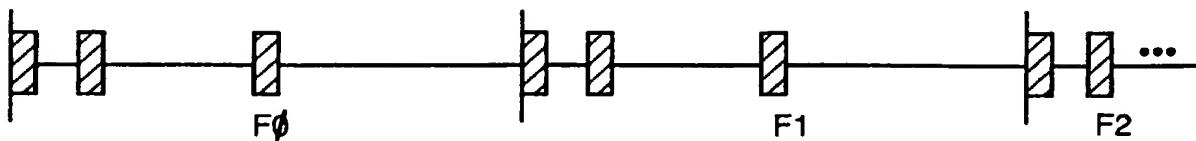


FIG. 25

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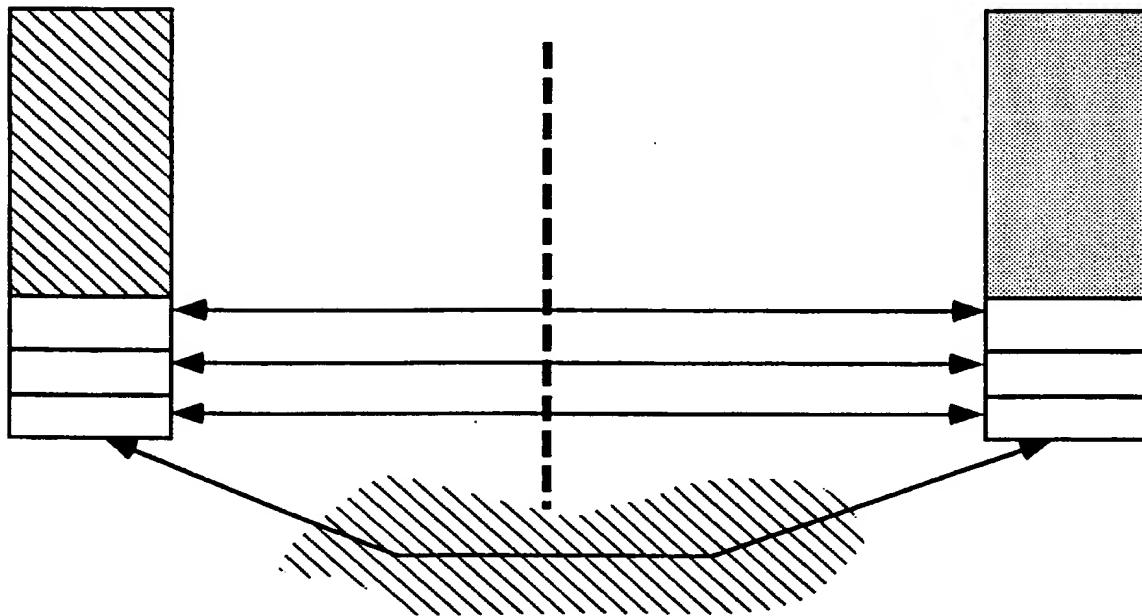


FIG. 26

21/45

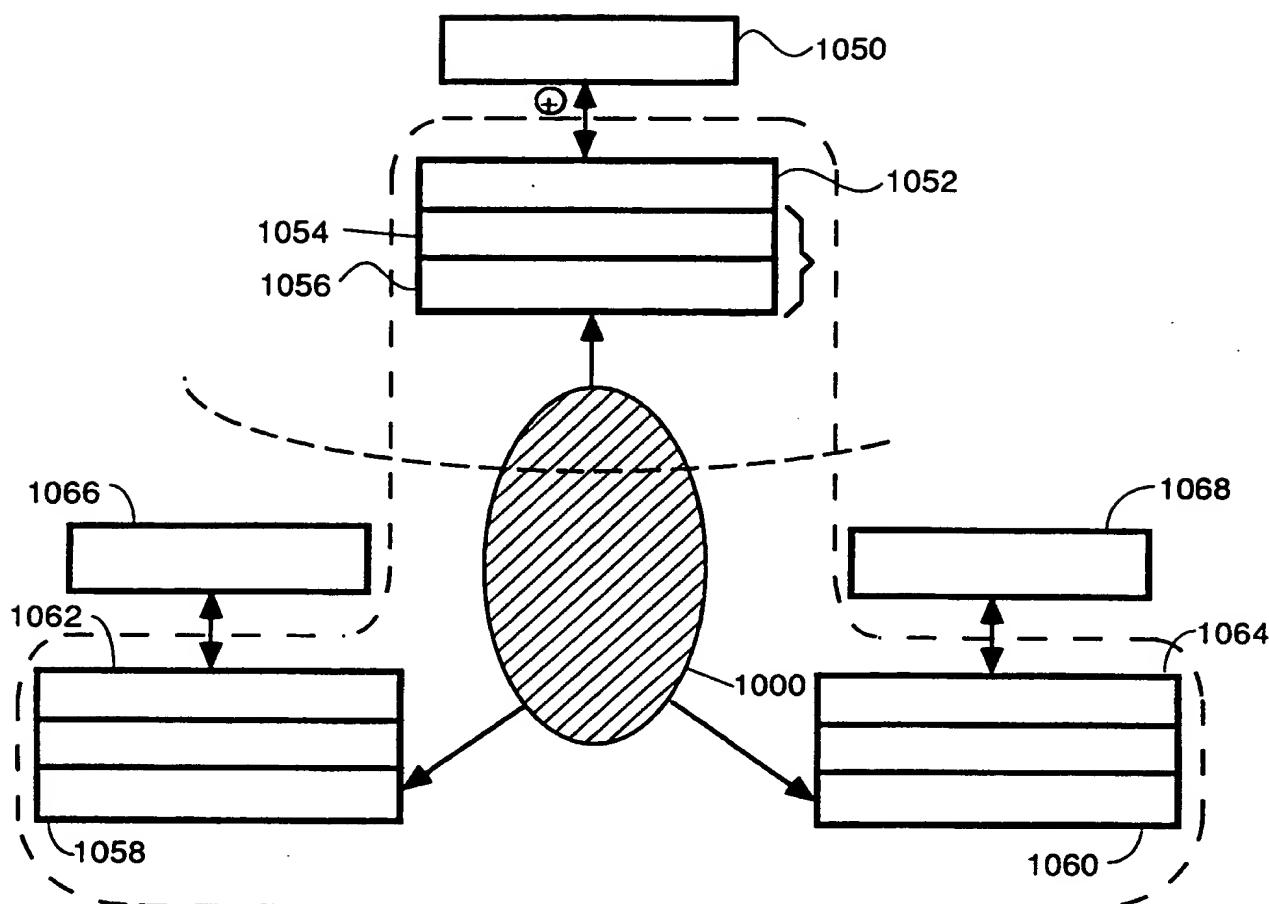


FIG. 27

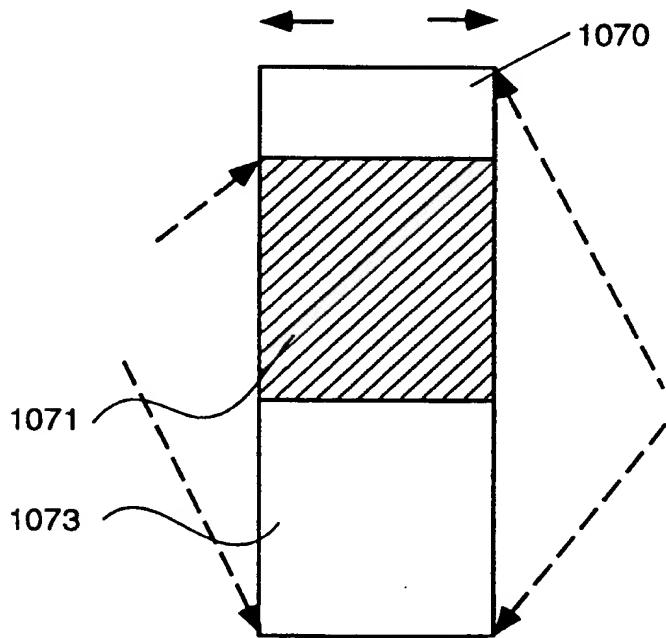


FIG. 28

22/45

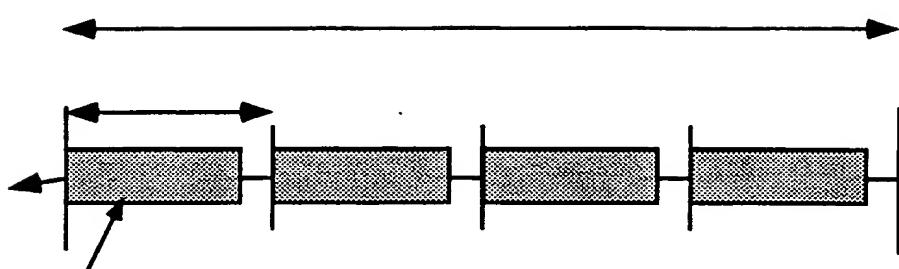


FIG. 29

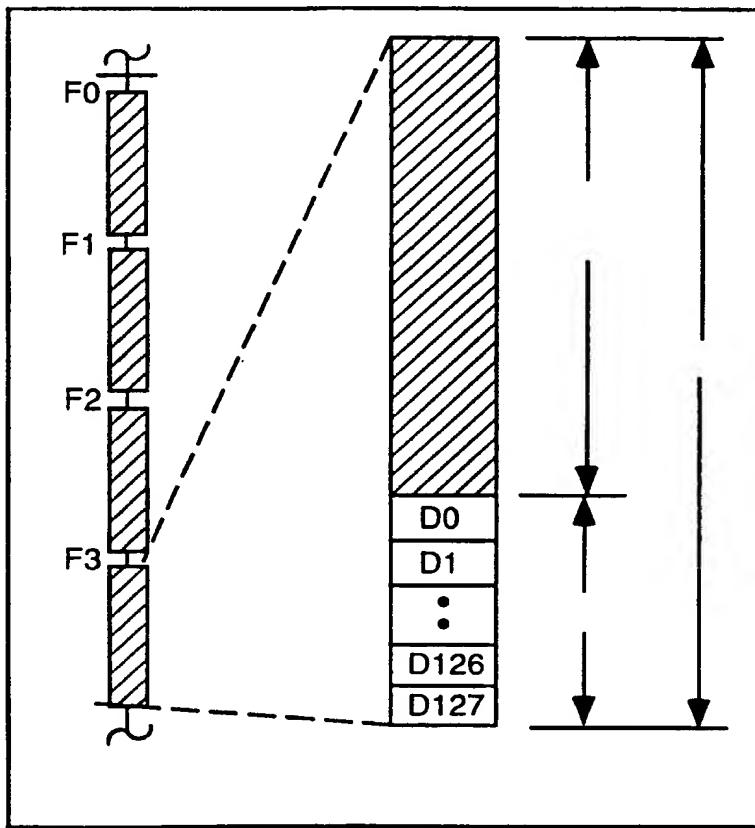


FIG. 30

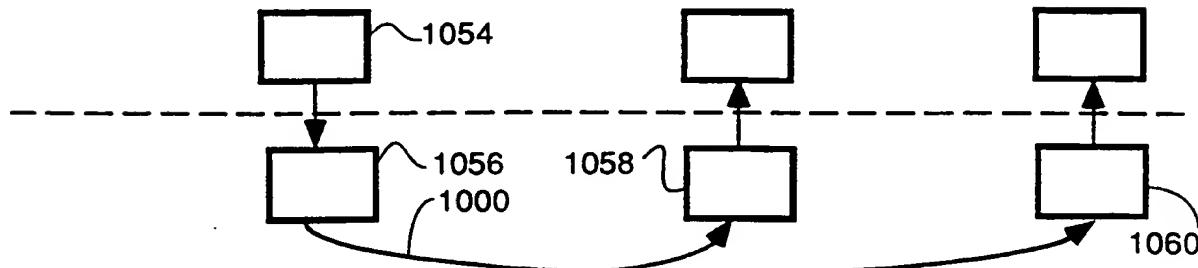


FIG. 31

23/45

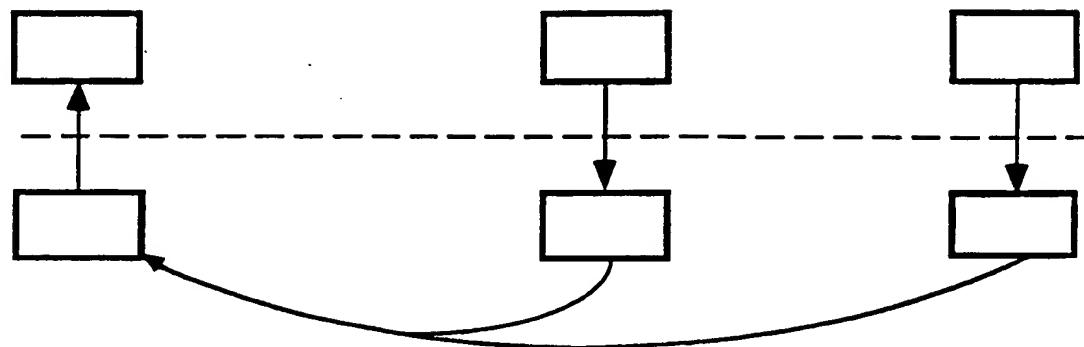


FIG. 32

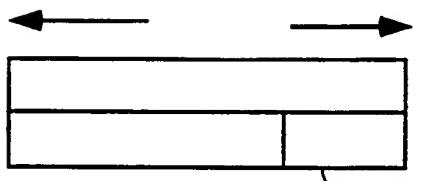


FIG. 33

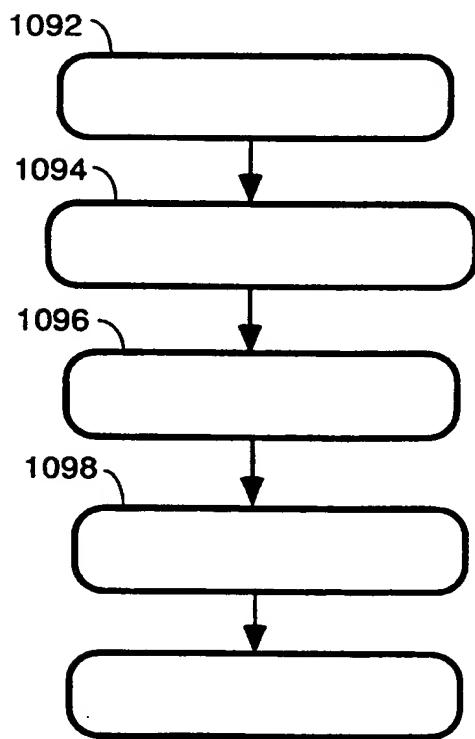


FIG. 35

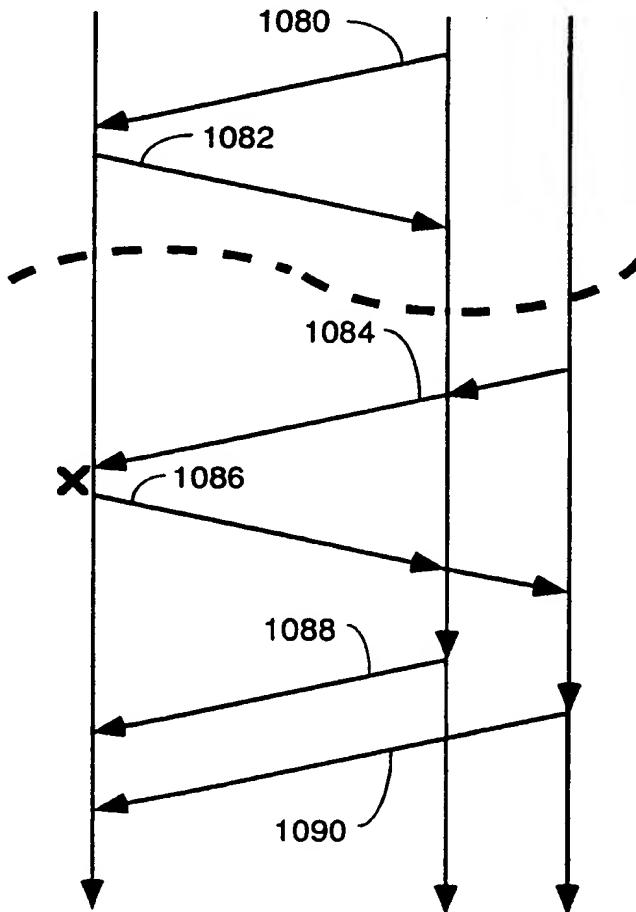


FIG. 34

24/45

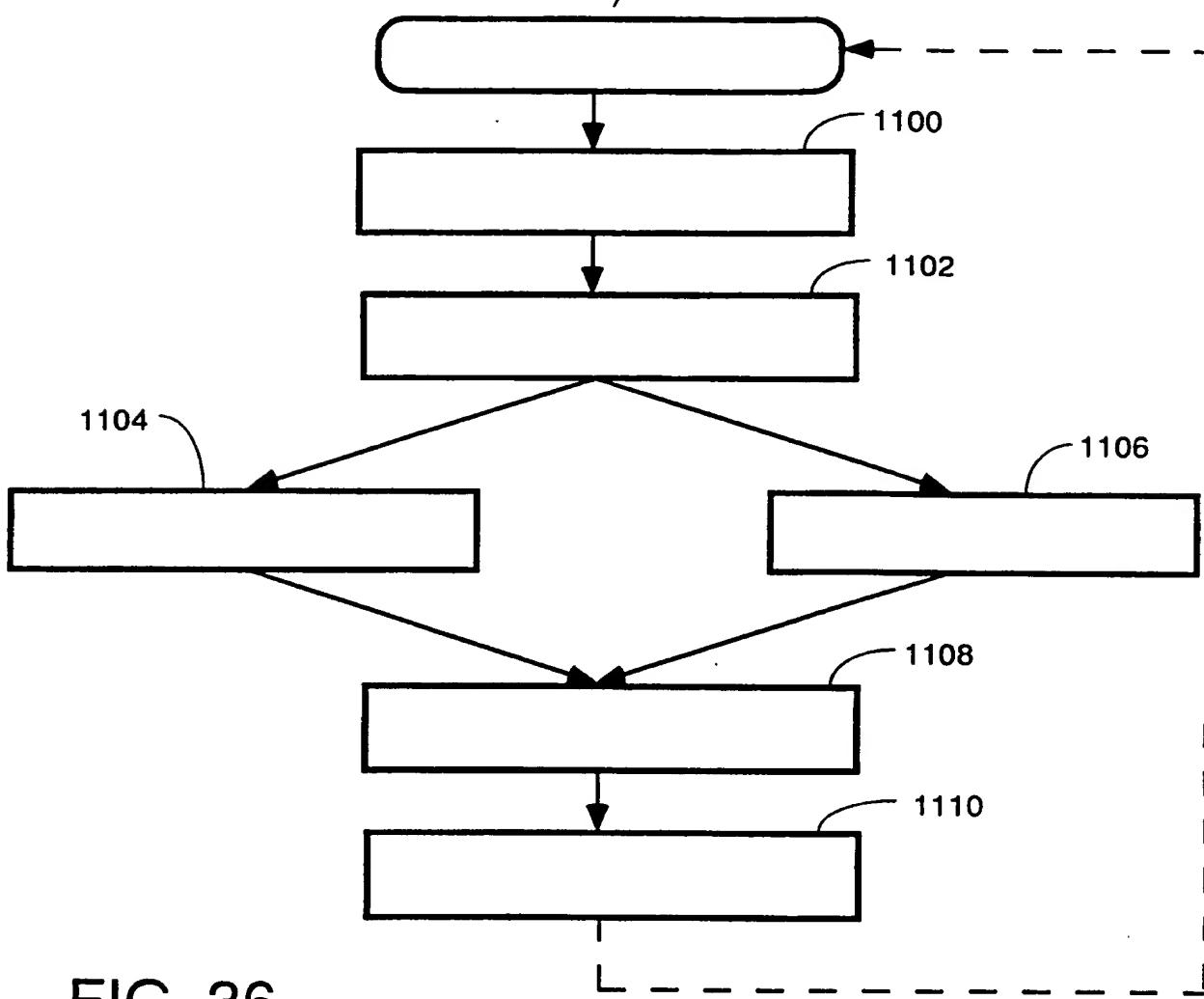


FIG. 36

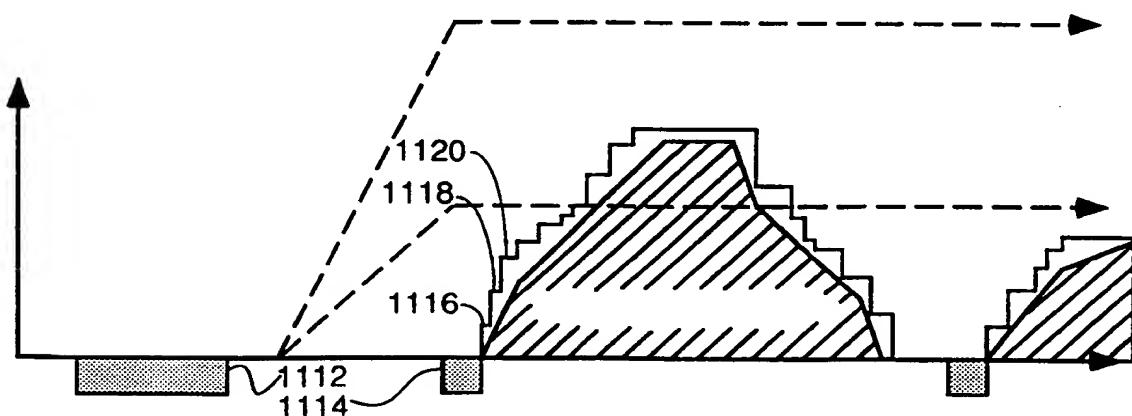


FIG. 37
SUBSTITUTE SHEET (RULE 26)

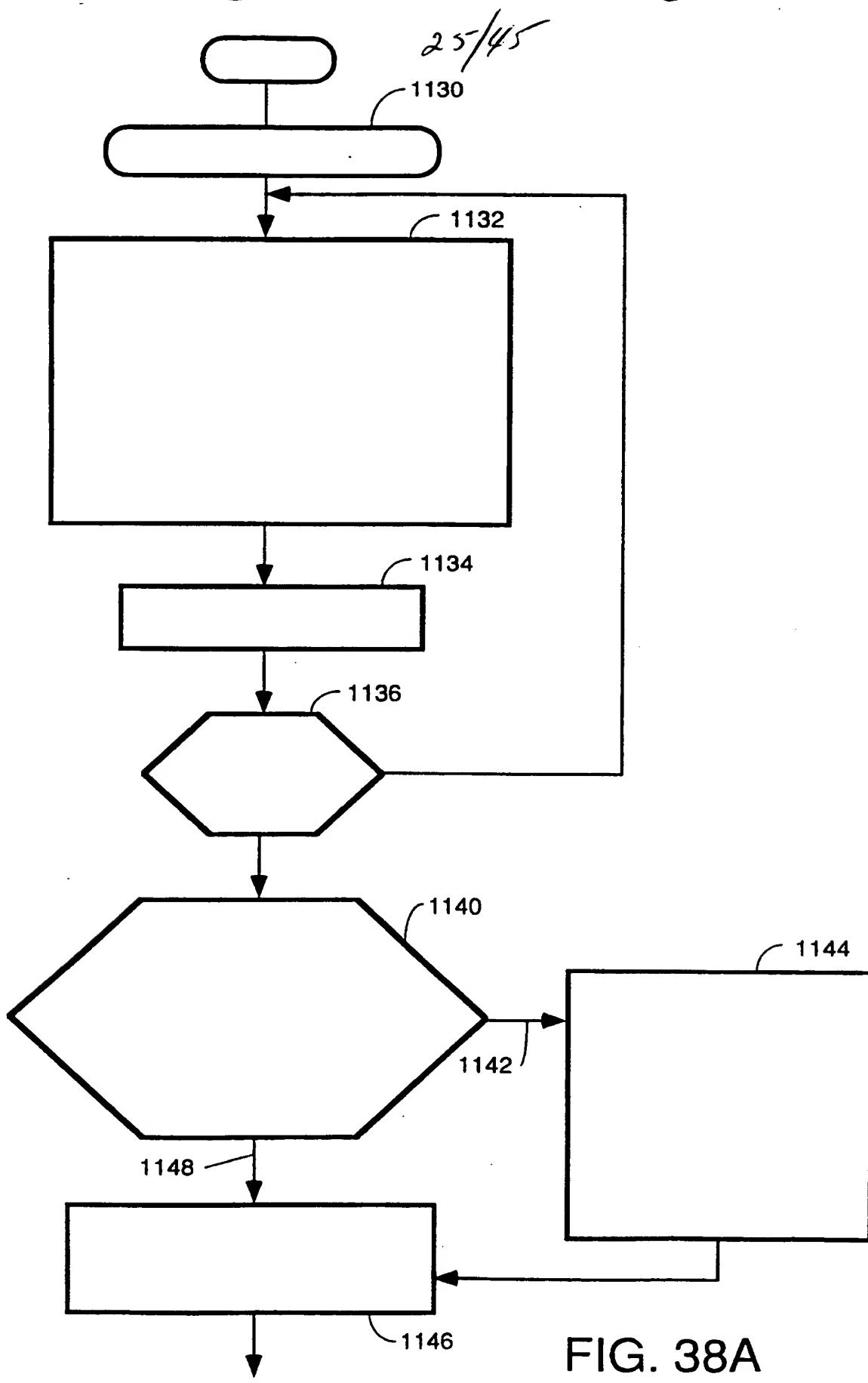


FIG. 38A

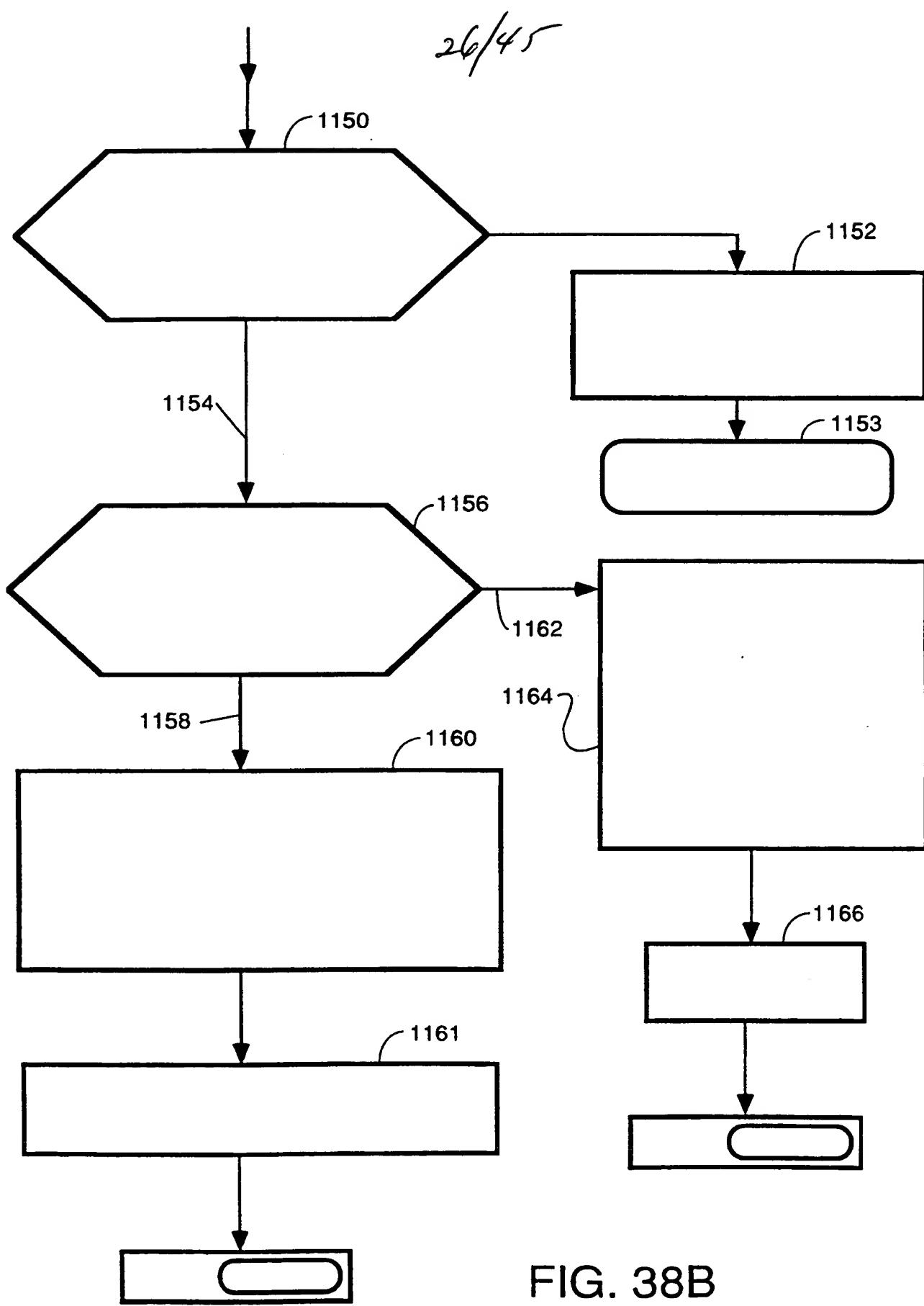


FIG. 38B

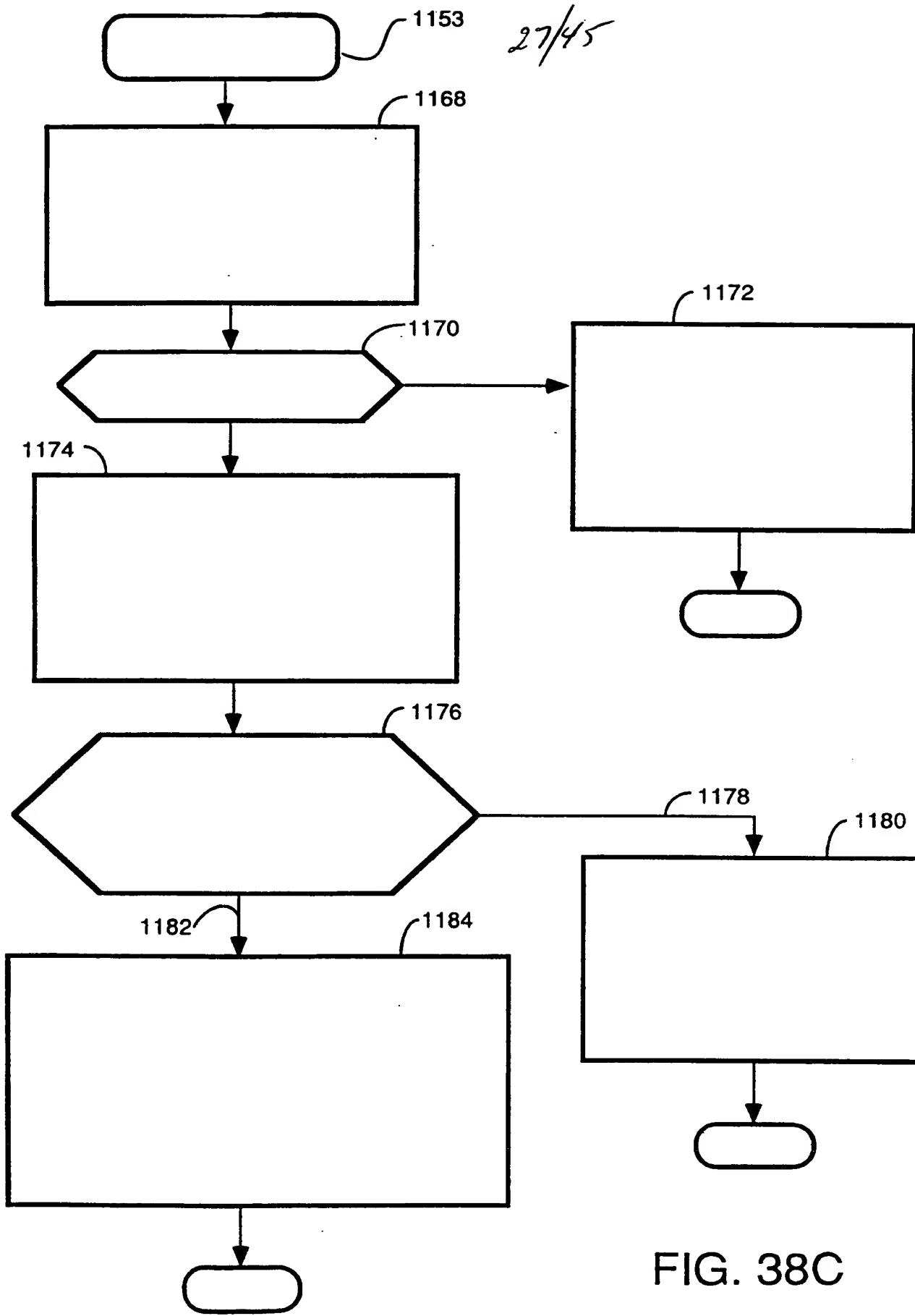


FIG. 38C

28/45

#7

#6

#5

#4

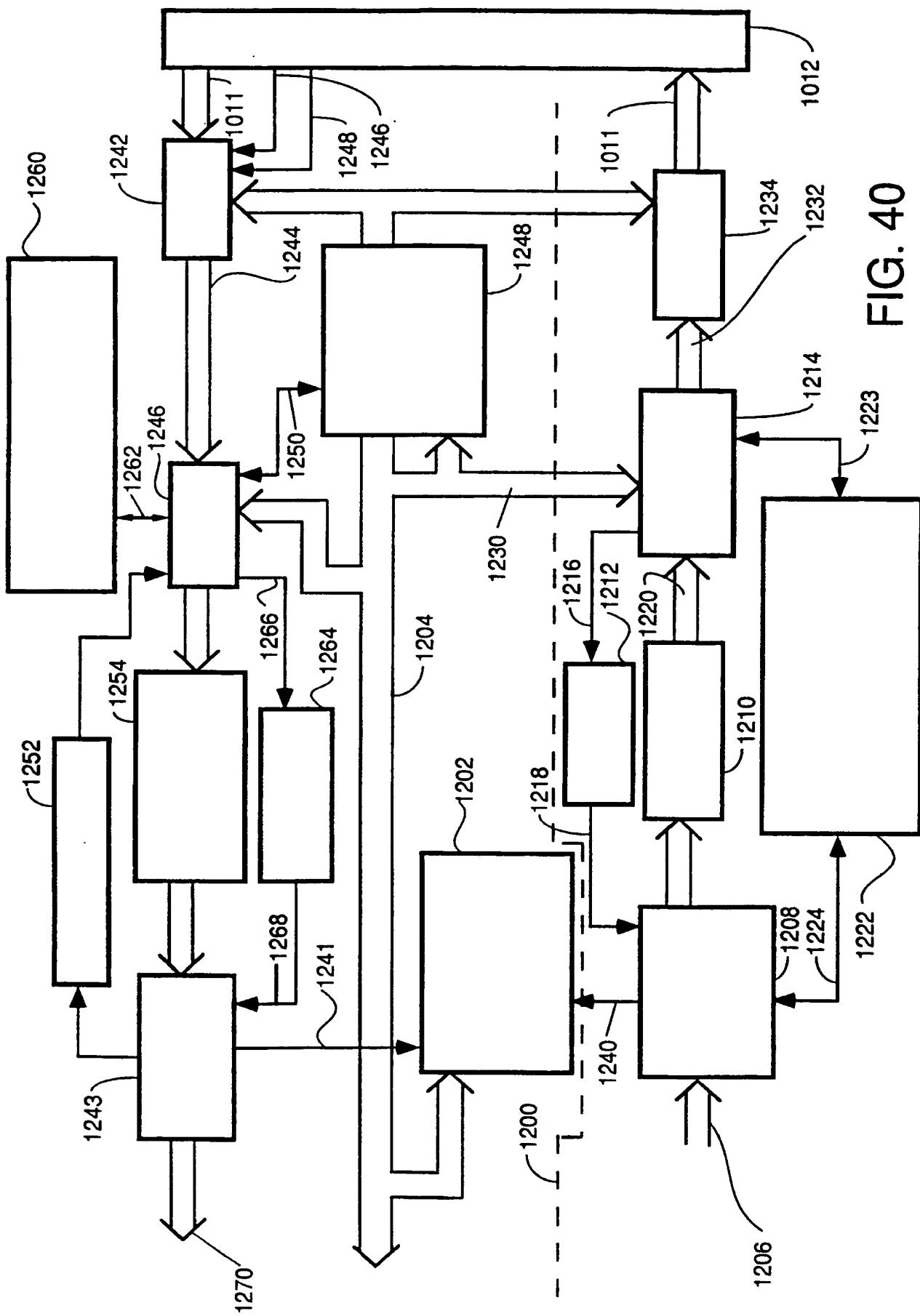
#3

#2

#1

FIG. 39

29/45



30/45

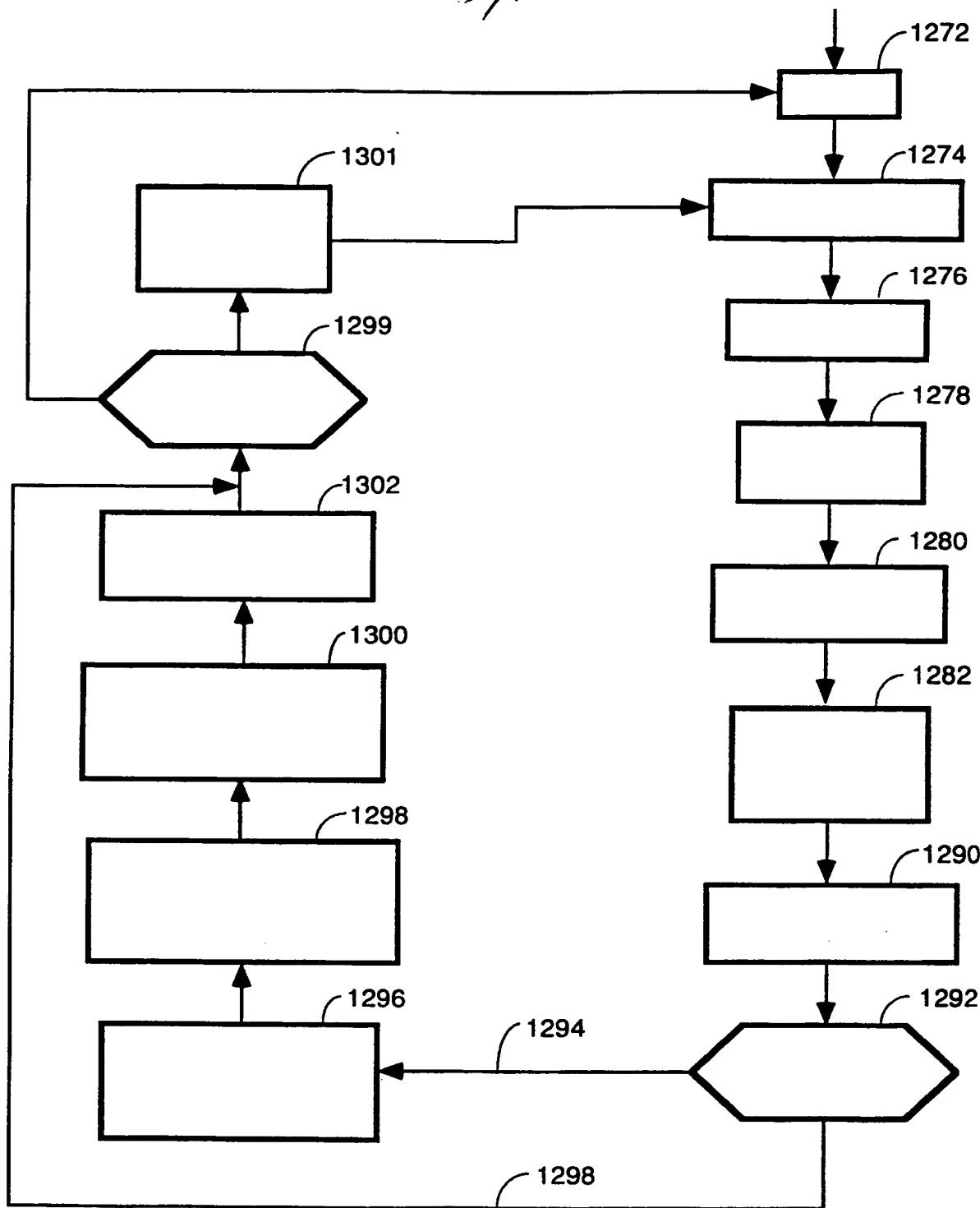


FIG. 41

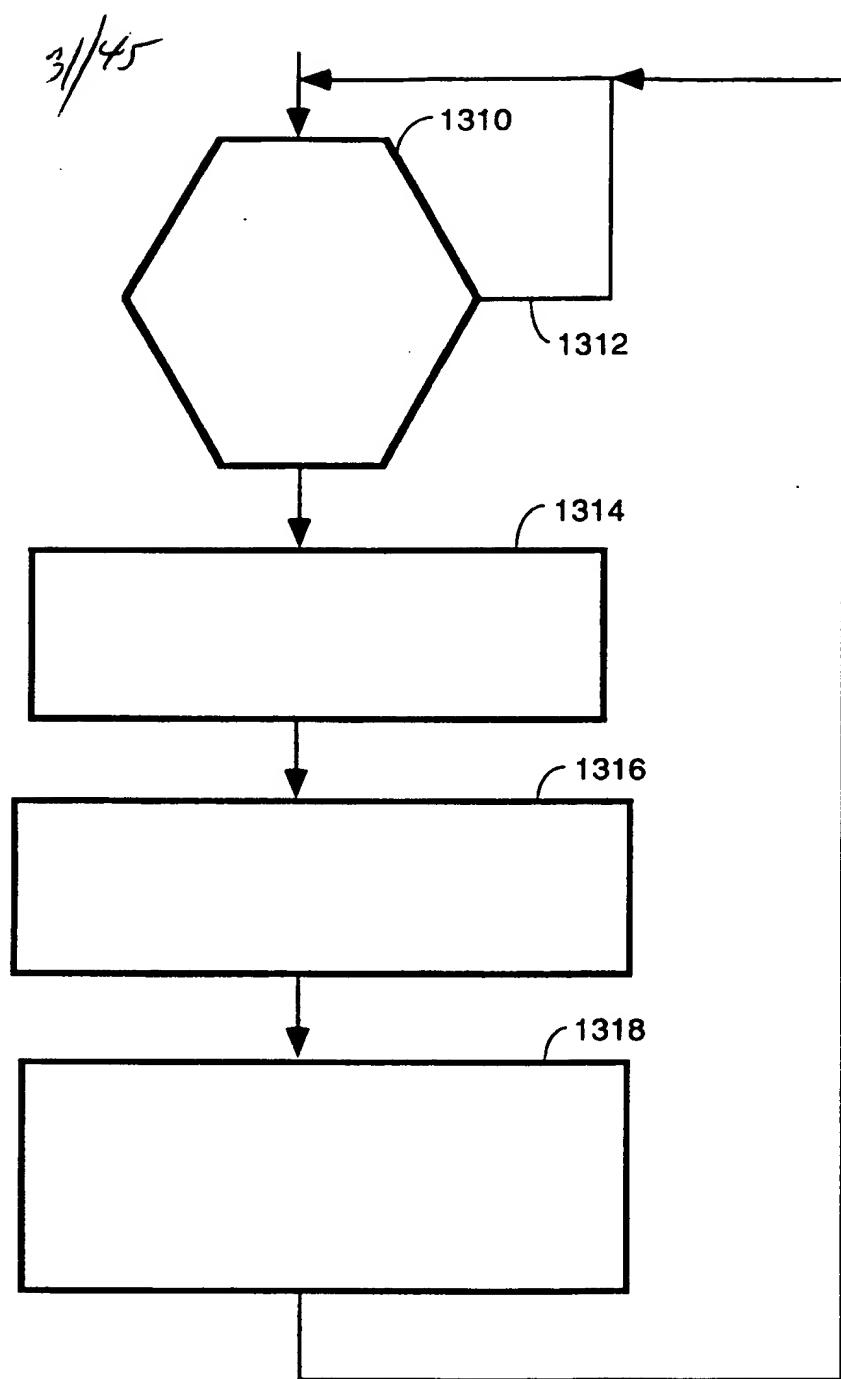


FIG. 42

52/45

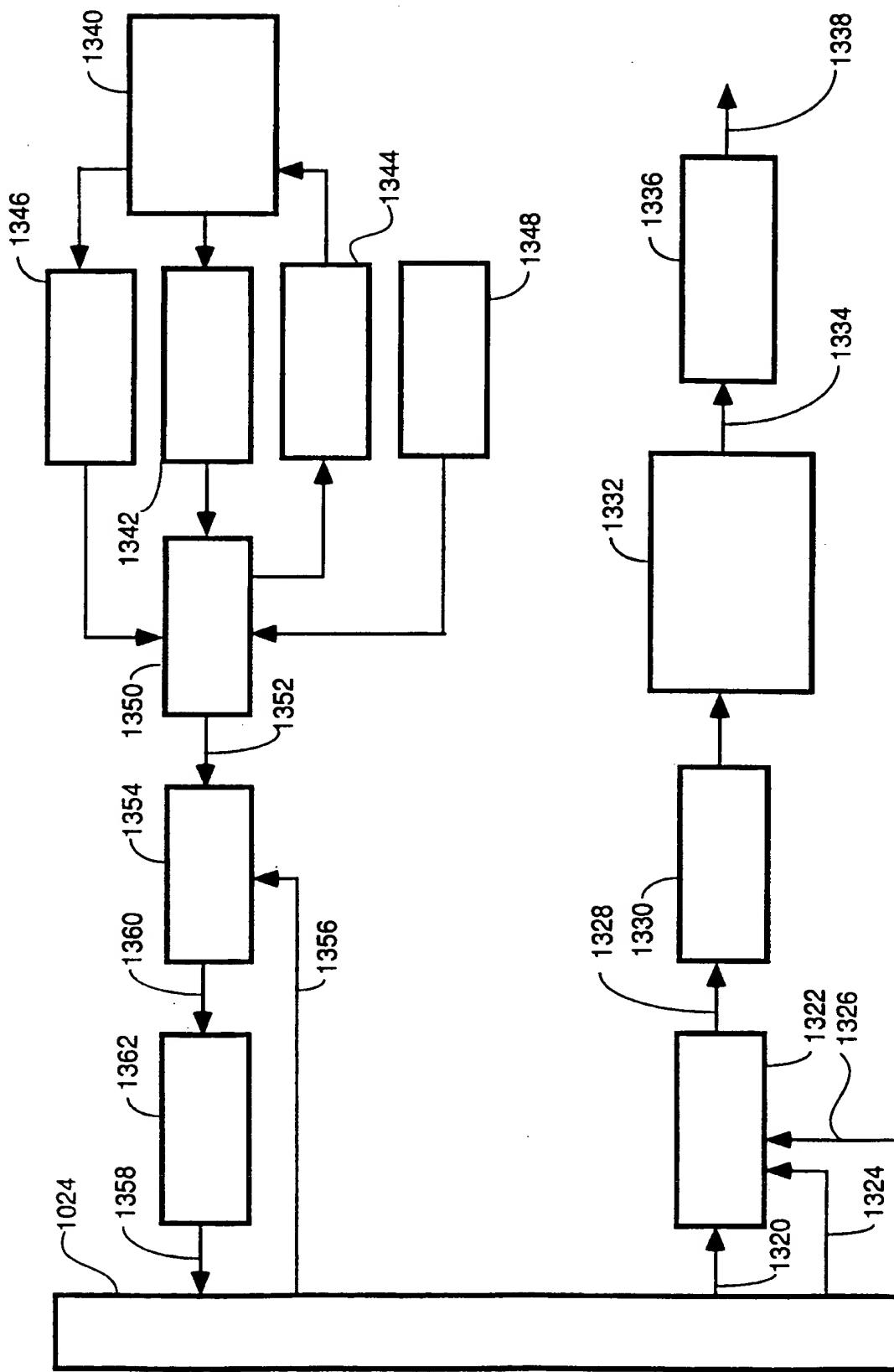


FIG. 43

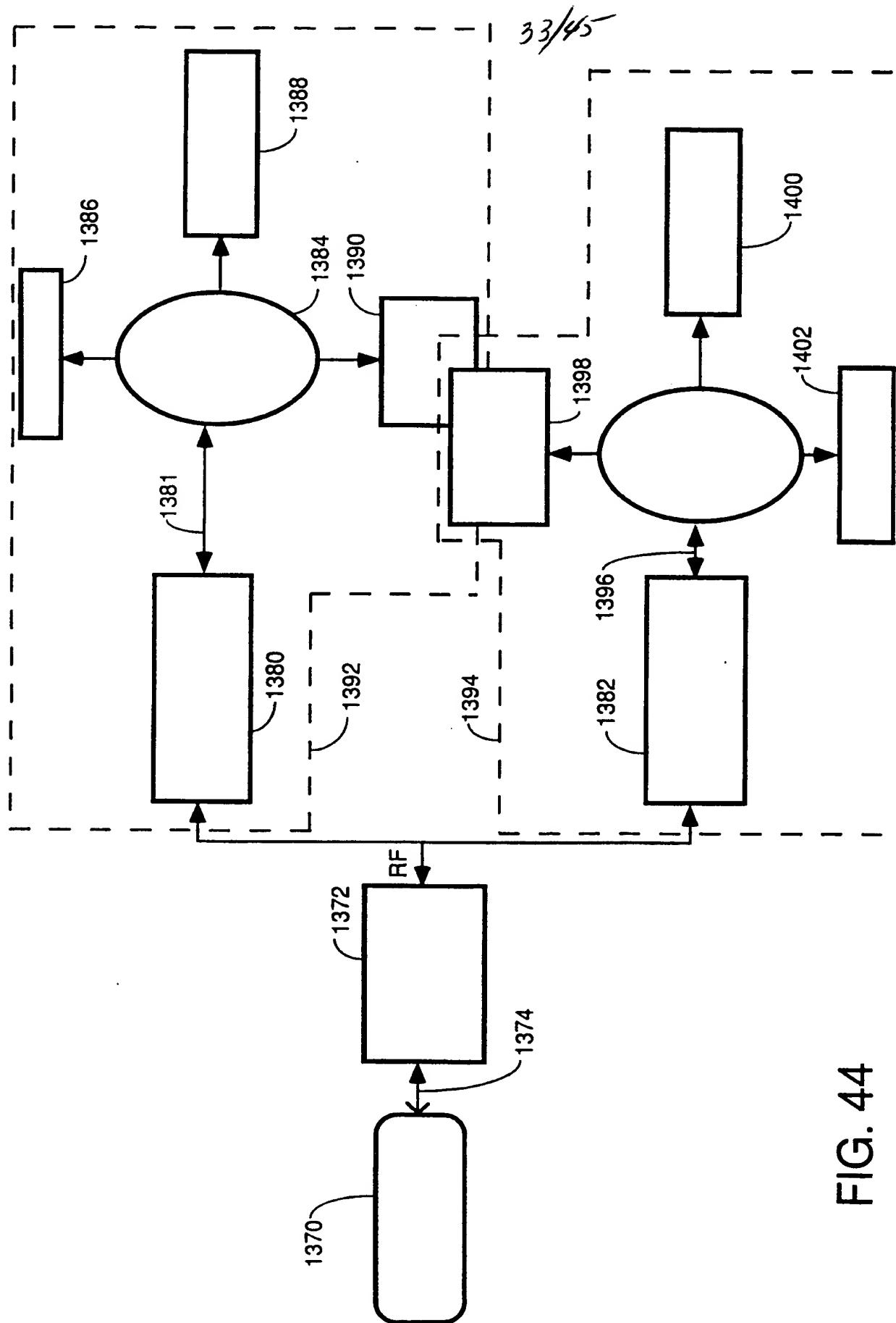


FIG. 44

34/45

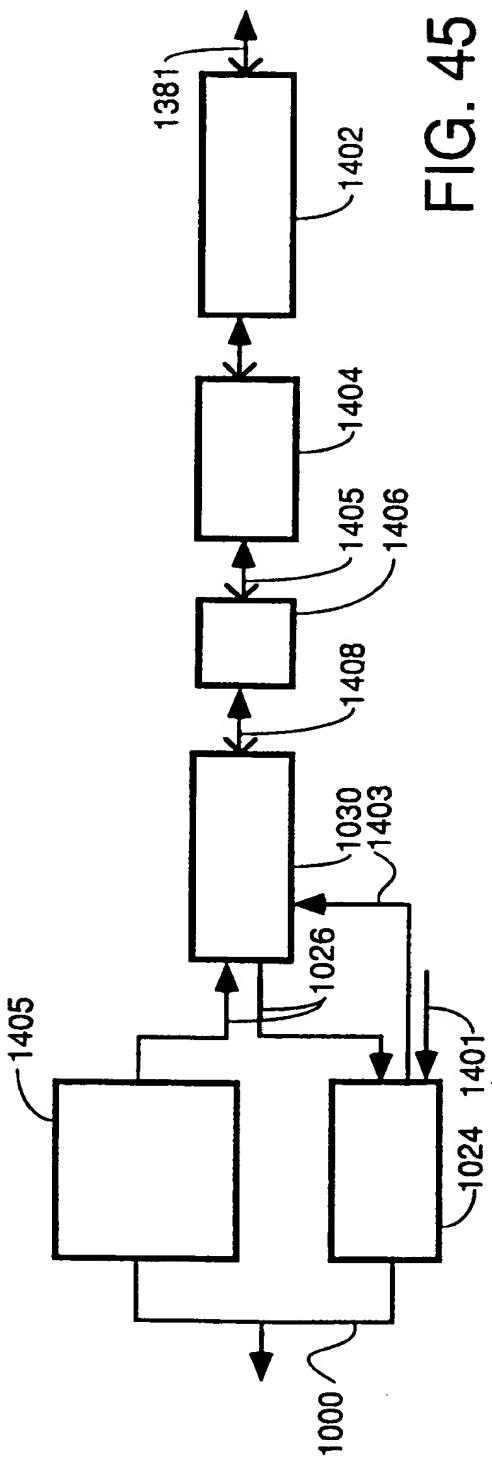


FIG. 45

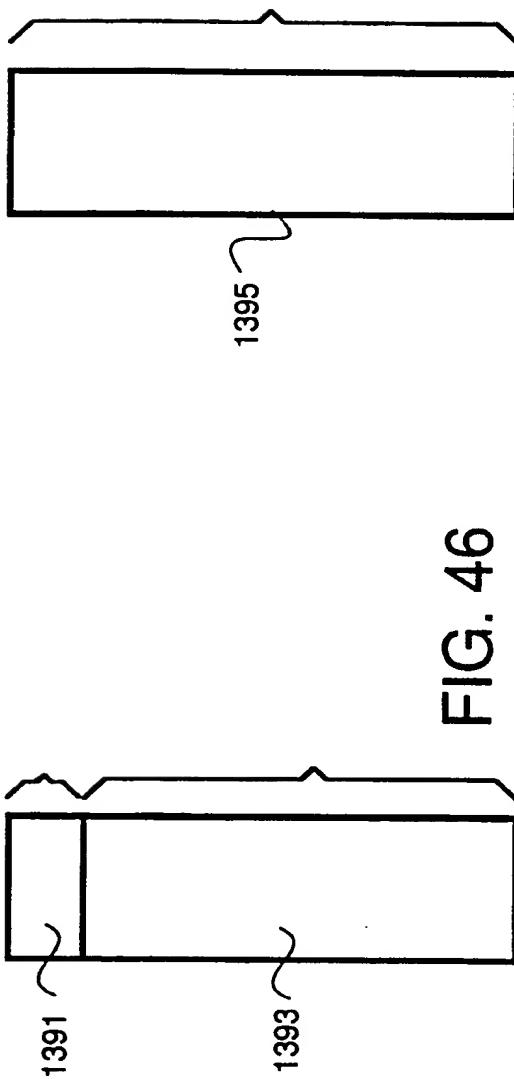


FIG. 47

35/35-

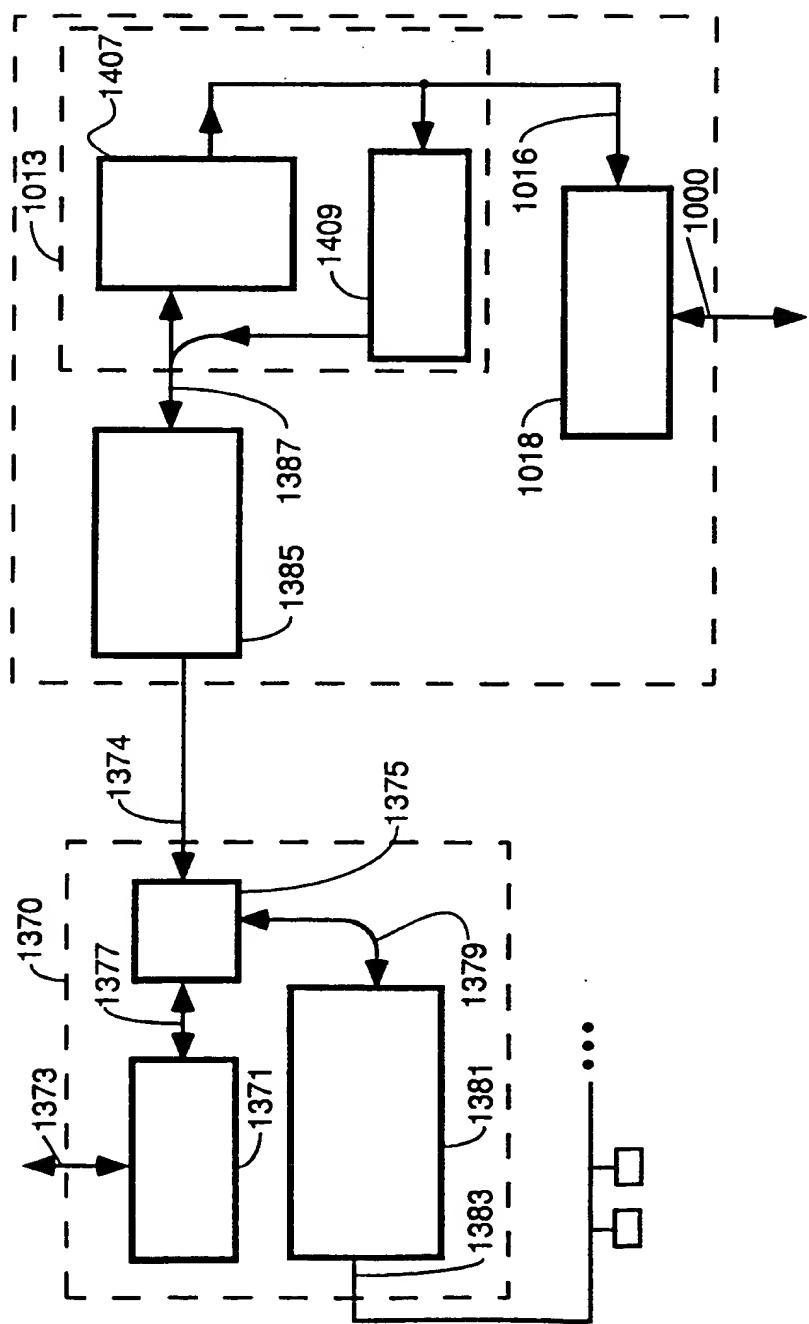


FIG. 48

36/45

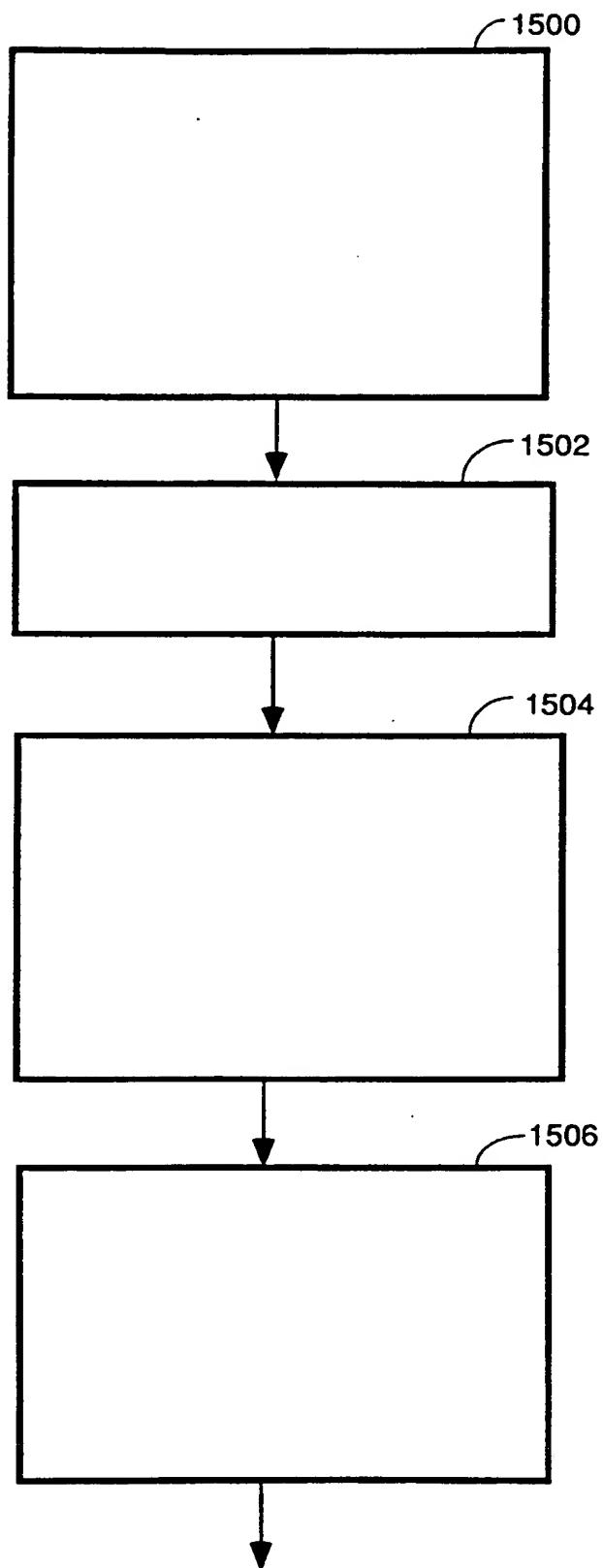


FIG. 49A

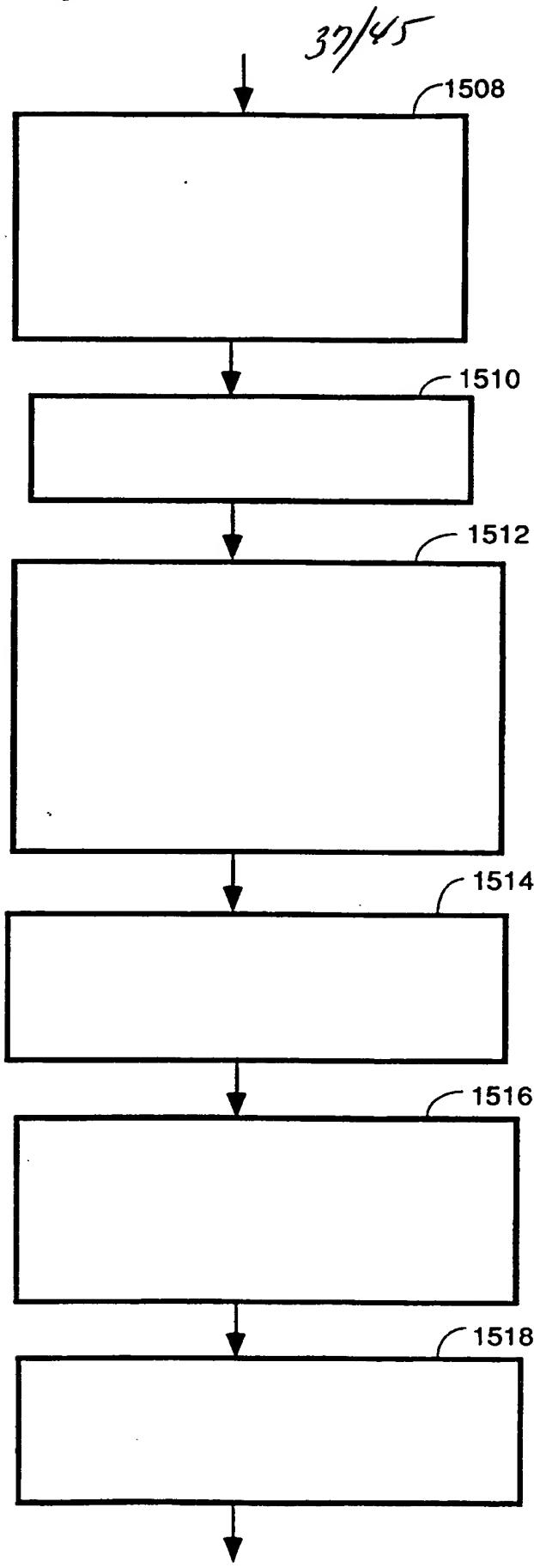


FIG. 49B

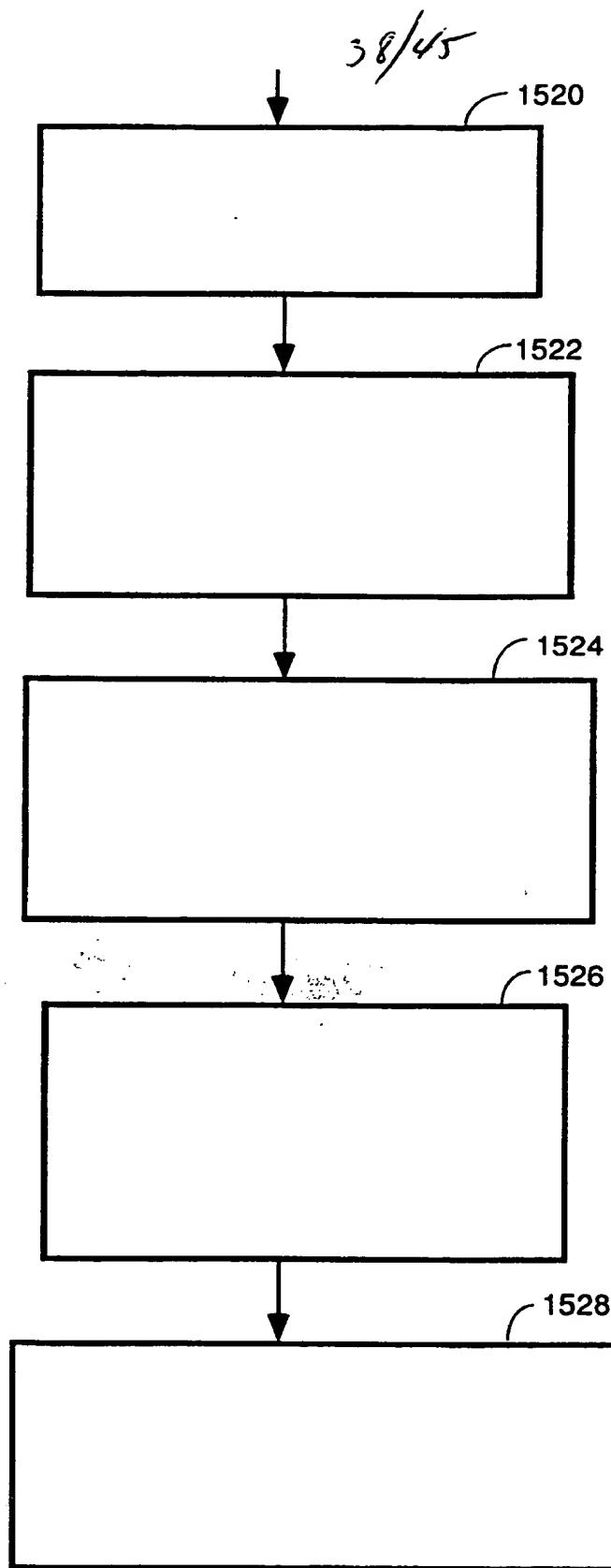


FIG. 49C

39/45

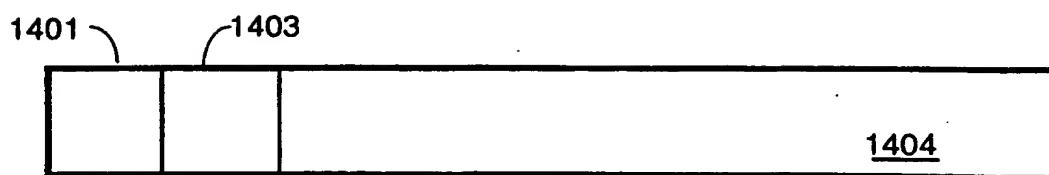


FIG. 50A

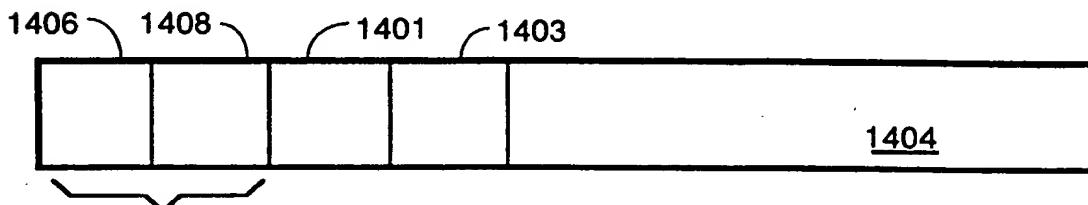


FIG. 50B

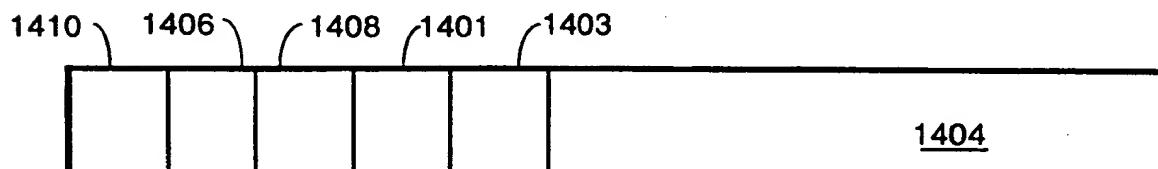


FIG. 50C

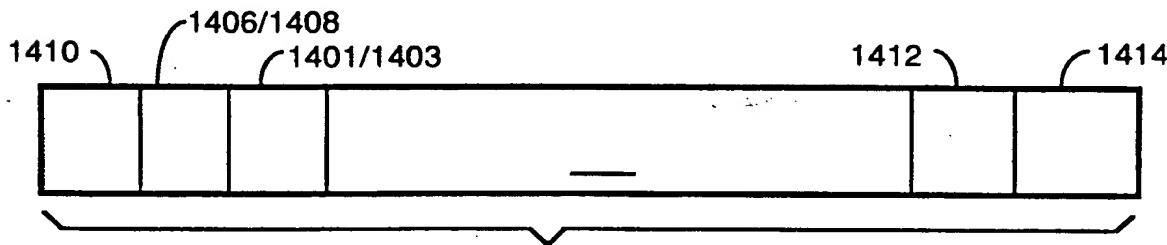


FIG. 50D



FIG. 50E

46/45

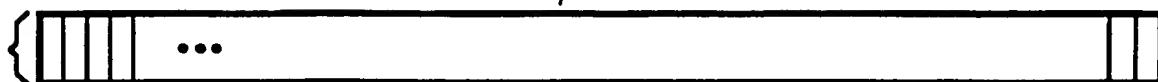


FIG. 50F

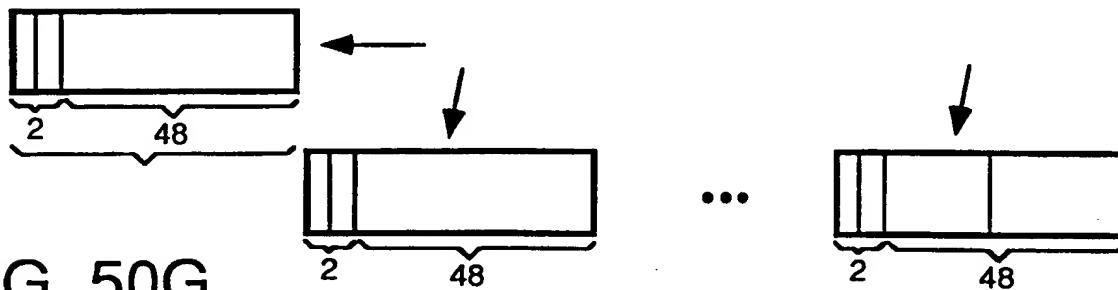


FIG. 50G



FIG. 50H

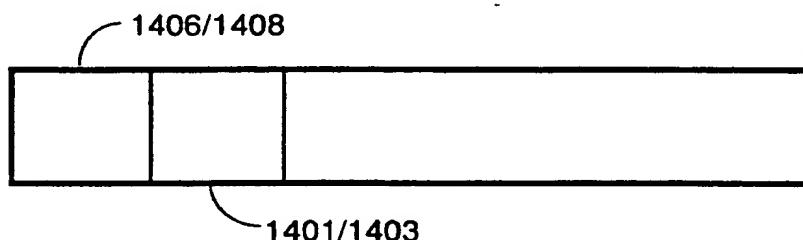


FIG. 50I

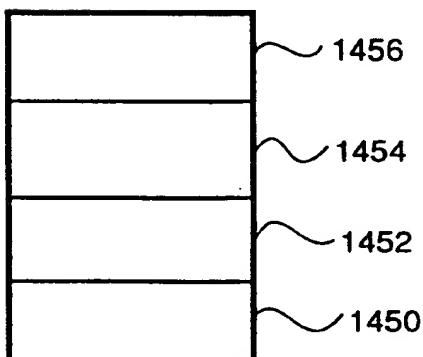


FIG. 51

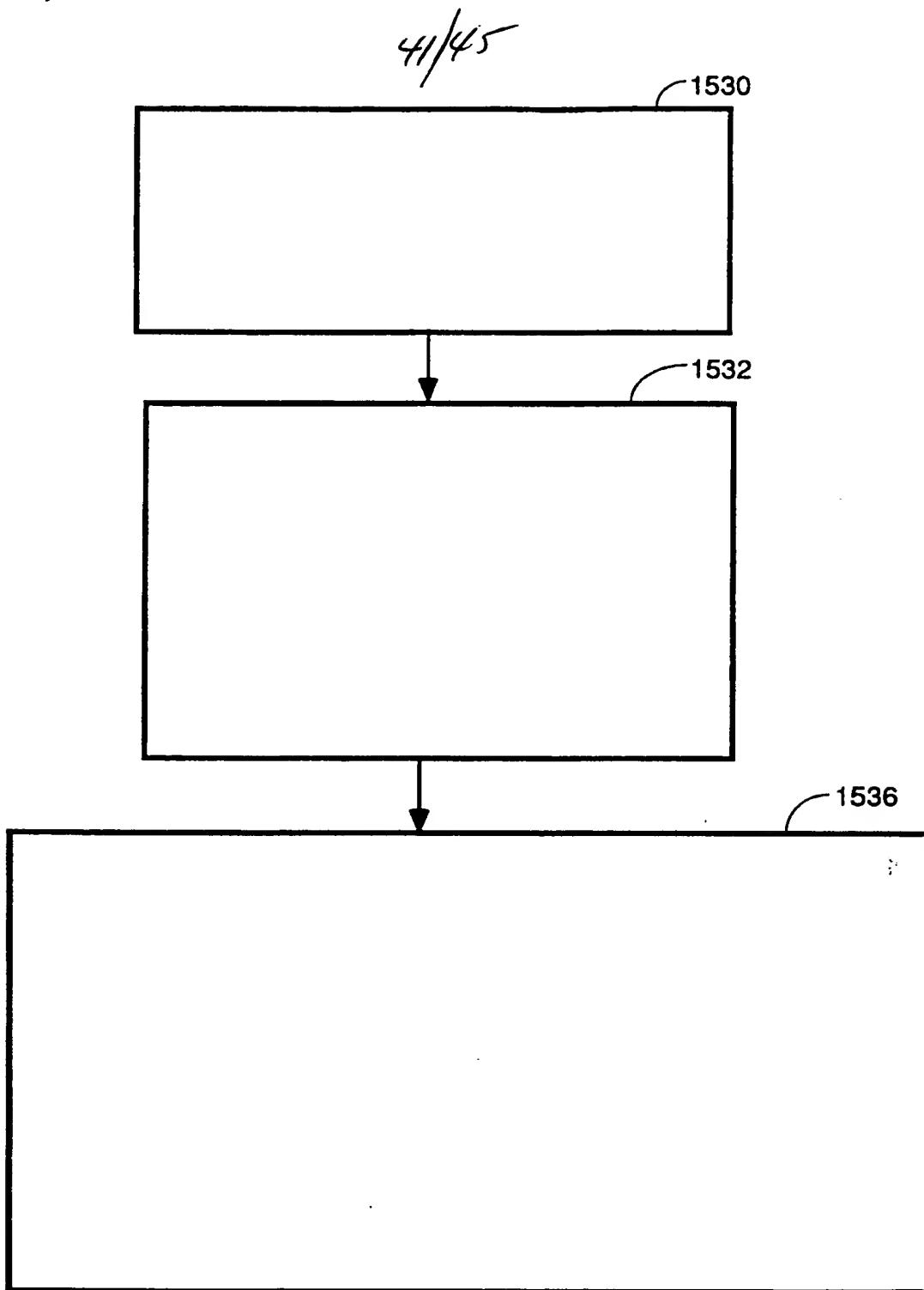


FIG. 52A

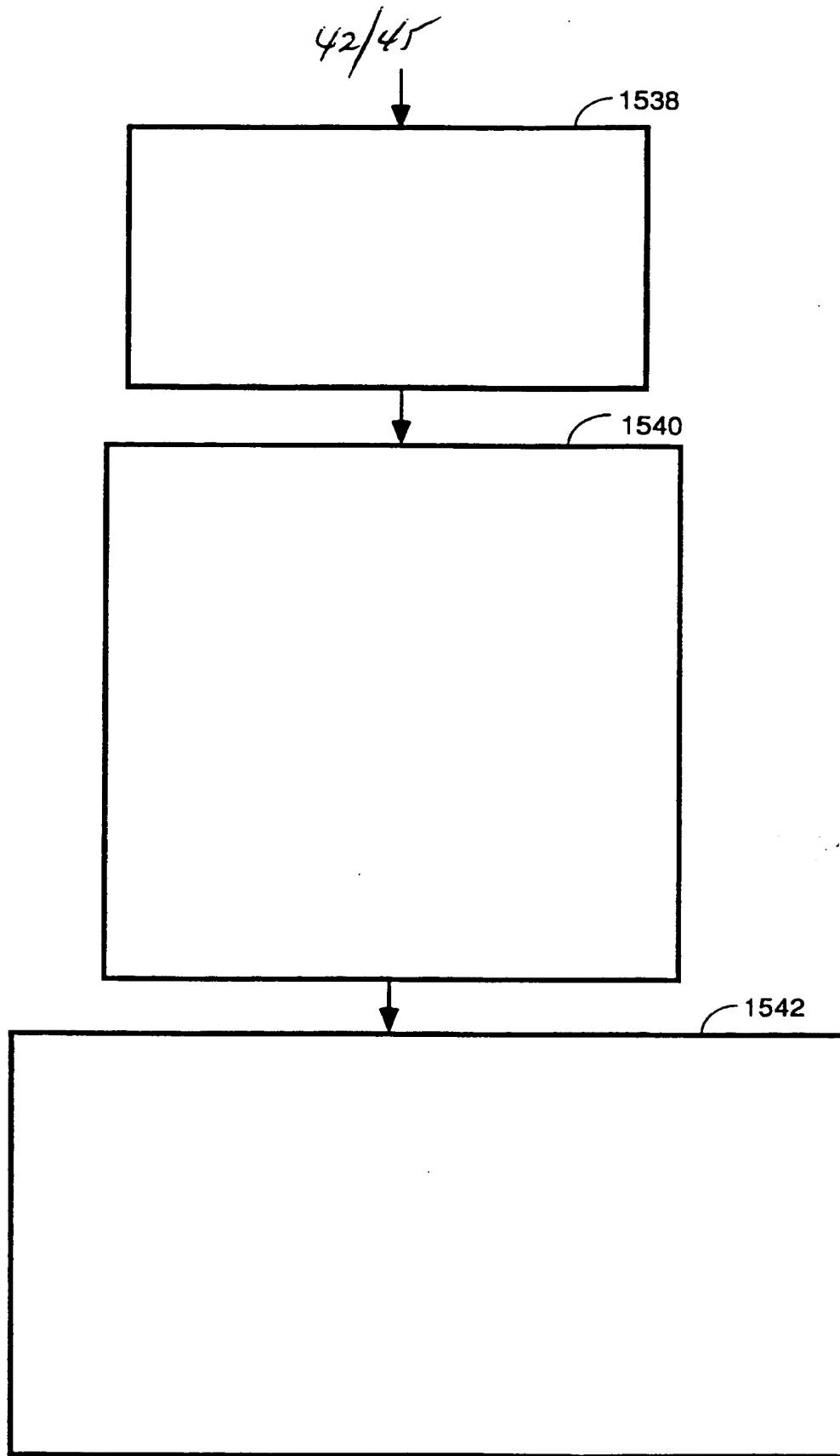


FIG. 52B

SUBSTITUTE SHEET (RULE 26)

43/45

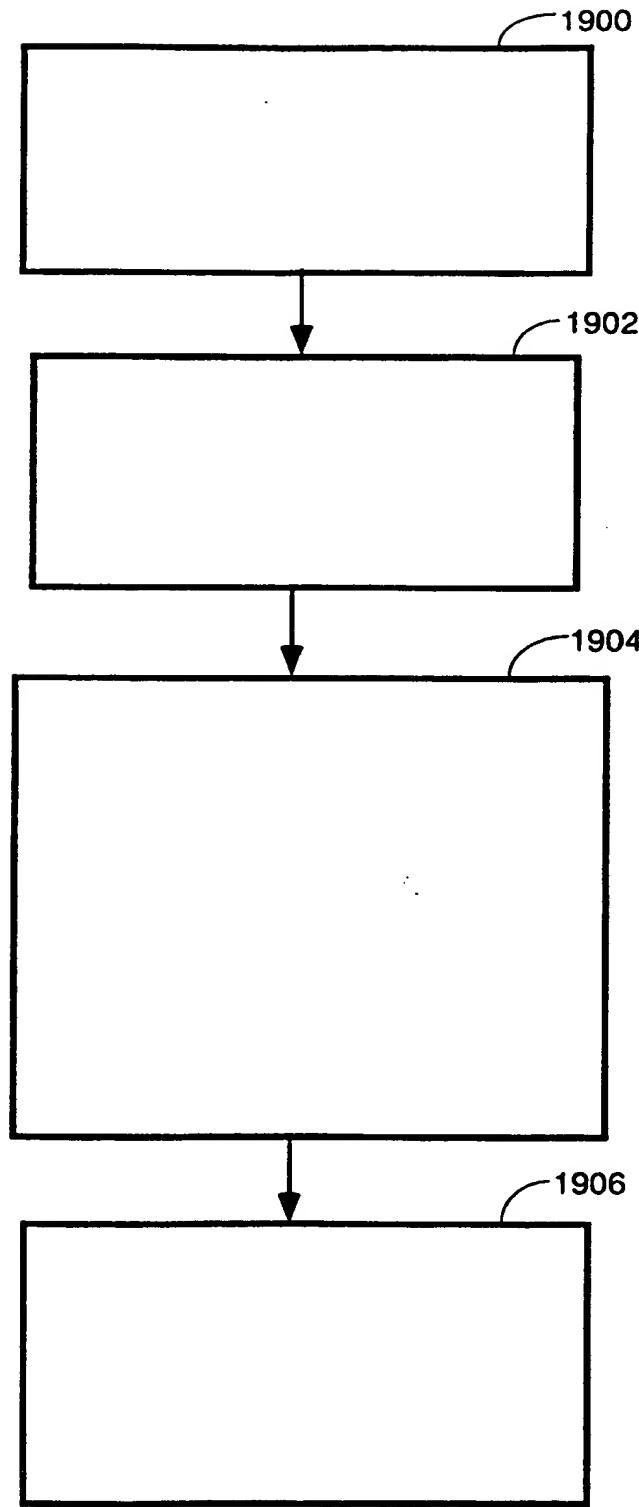


FIG. 53A

44/45

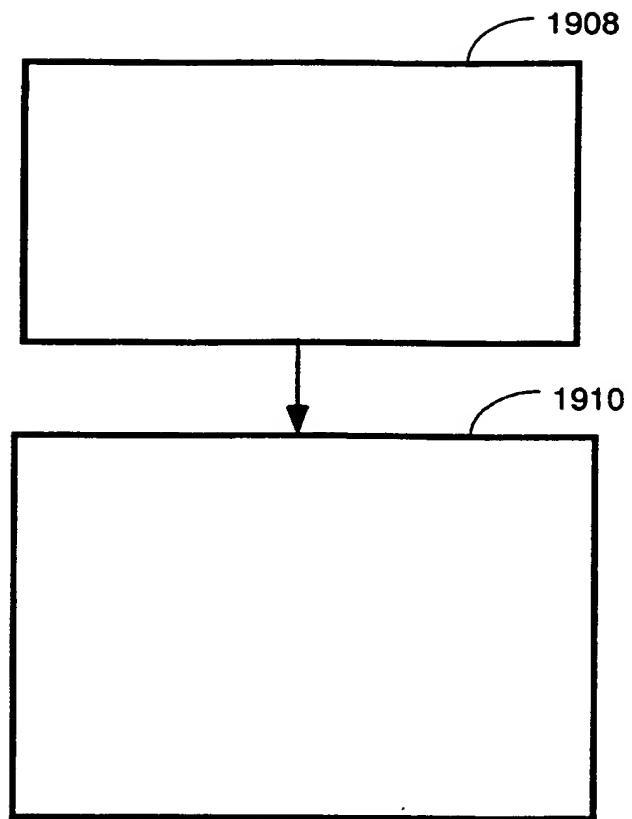


FIG. 53B

09/214158

WO 97/34421

PCT/US97/03984

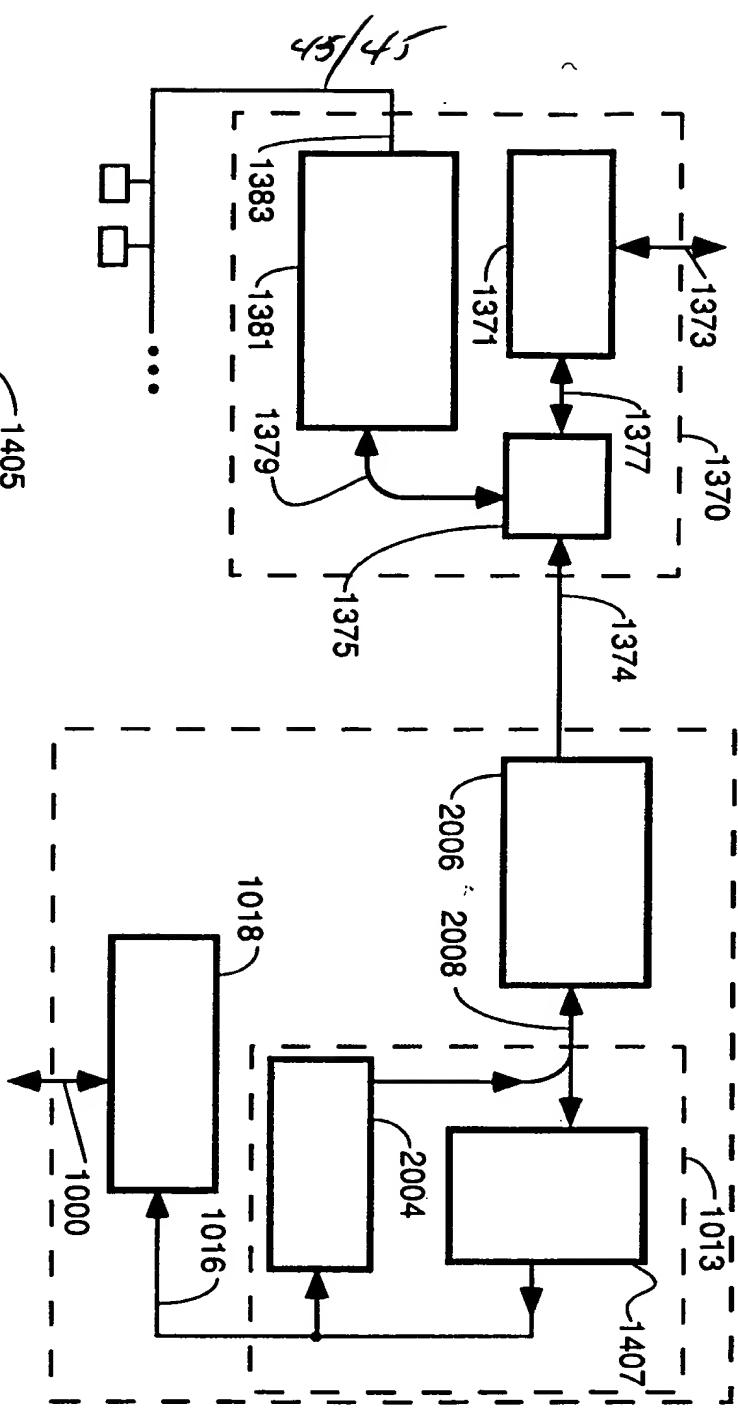
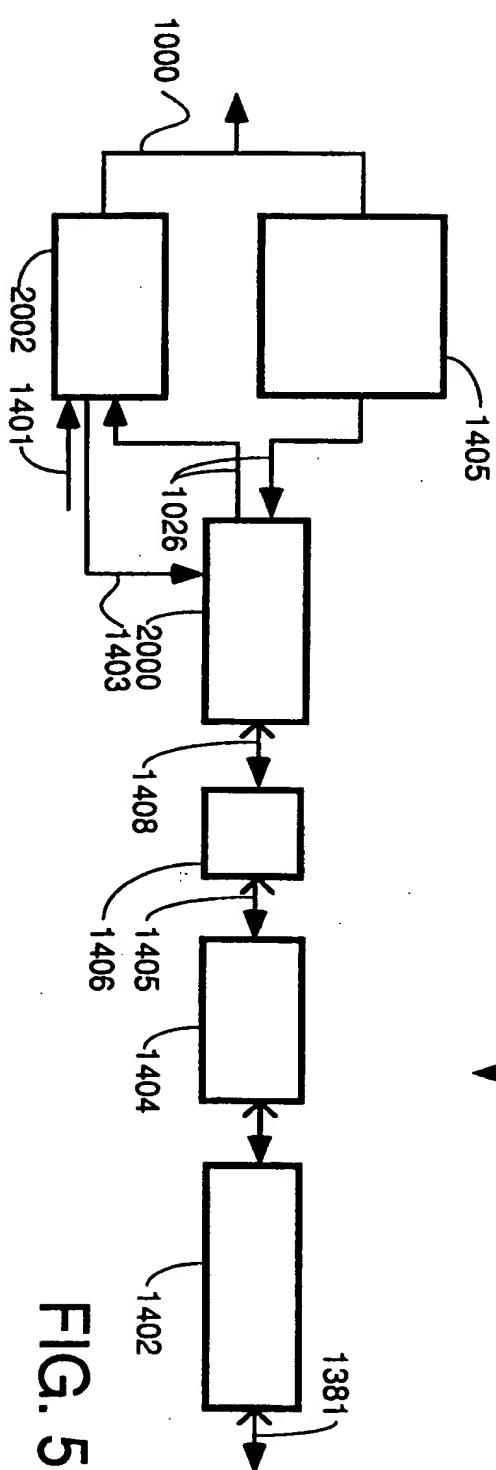


FIG. 54

FIG. 55